Supreme Court, U.S.
FILED

961858 MAY 19 1997

No.

OFFICE OF THE CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1996

SHELLEY K. COLE,
Petitioner,

vs.

KIMBERLY-CLARK CORPORATION,
Respondent.

ON PETITION FOR WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

PETITION FOR WRIT OF CERTIORARI

IRELL & MANELLA LLP

MORGAN CHU
Counsel of Record

RICHARD DE BODO
GARY N. FRISCHLING

1800 Avenue of the Stars, Suite 900
Los Angeles, California 90067-4276
(310) 277-1010

Attorneys for Petitioner
SHELLEY K. COLE

Lawyers Brief Service • Appellate Brief Printers • (213) 613-1013 • (714) 720-1510

92PP

QUESTIONS PRESENTED

(1) Whether the blanket rule adopted by the Federal Circuit Court of Appeals excluding all testimony, including expert testimony, concerning the meaning of terms used in patents, violates the Federal Rules of Evidence and this Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 587 (1993).

(2) Whether prosecution history estoppel can be invoked against a patentholder who has not amended her patent claims, based only upon statements by her patent attorney to the Patent and Trademark Office.

(3) Whether, contrary to many years of circuit court precedent, a patentholder can be denied the protections of 35 U.S.C. § 112, which allows an element in a patent's claims to be described by stating what the element does, because she includes a single word in the claims suggesting a possible structure for the element.

TABLE OF CONTENTS

QUESTIONS PRESENTED i

TABLE OF AUTHORITIES vi

OPINIONS BELOW 1

JURISDICTION 2

QUESTIONS PRESENTED 2

STATUTORY PROVISIONS INVOLVED 2

STATEMENT 3

REASONS FOR GRANTING THE WRIT 7

I. The Federal Circuit's Per Se Rule Against The Introduction of Expert Testimony Concerning Interpretation of Patent Claims Violates The Federal Rules of Evidence 8

II. Prosecution History Estoppel Can Arise Only From Amendment of A Patent Claim, Not From Mere Attorney Argument 13

III. The Safe Harbor of Section 112, Allowing Patent Attorneys to Describe Claim Elements By Saying What Function They Accomplish, Should Not Be Closed Off Because A Single Word Suggesting Structure is Recited 20

IV. The Issues Raised In This Petition Are Important 25

CONCLUSION 26

LIST OF APPENDICES

APPENDIX A

OPINION, Court of Appeals for the Federal Circuit, decided December 6, 1996 . . . . . A1

APPENDIX B

ORDER, U.S. District Court, District of Arizona, filed June 20, 1995 . . . . . B1

APPENDIX C

ORDER, U.S. District Court, District of Arizona, filed March 31, 1995 . . . . . C1

APPENDIX D

ORDER DENYING REHEARING, Court of Appeals for the Federal Circuit, filed February 18, 1997 . . . . . D1

TABLE OF AUTHORITIES

Cases

Alpex Computer Corp. v. Nintendo Co.,
102 F.3d 1214 (Fed. Cir. 1996) 16

American Permahedge Inc. v. Barcana Inc., 105 F.3d 1441 (Fed. Cir. 1997) 16

Beech Aircraft Corp. v. Rainey,
48 U.S. 153 (1988) 11

Catalin Corp. v. Catalazuli Mfg. Co.,
79 F.2d 593 (2d Cir. 1935) 15

Cole v. Kimberly-Clark Corp.,
102 F.3d 524 (Fed. Cir. 1996) 16

Daubert v. Merrell Dow Pharmaceuticals, Inc.,
509 U.S. 579 (1993) 2, 8, 11, 13

Ekchian v. Home Depot Inc.,
104 F.3d 1299 (Fed. Cir. 1997) 16

Fonar Corp. v. General Electric Co.,
107 F.3d 1543 (Fed. Cir. 1997) 23

Halliburton Oil Well Cementing Co. v. Walker,
329 U.S. 1 (1946) 21, 25

Harper v. Virginia Dep't of Taxation,
509 U.S. 86 (1993) 12

Insituform Techs. Inc. v. Cat Contracting Inc., 99 F.3d 1098 (Fed. Cir. 1996), *cert. denied*, 65 U.S.L.W. 3725, 3727 (U.S. Apr. 28, 1997) 16

Intellicall Inc. v. Phonometrics Inc., 952 F.2d 1384 (Fed. Cir. 1992) 10, 24

Interspiro USA Inc. v. Figgie International Inc., 815 F. Supp. 1488 (D. Del. 1993), *aff'd*, 18 F.3d 927 (Fed. Cir. 1994) 24

Interspiro USA Inc. v. Figgie International Inc., 18 F.3d 927 (Fed. Cir. 1994) 24

J.T. Eaton & Co. v. Atlantic Paste, 106 F.3d 1563 (Fed. Cir. 1997) 16

Kearns v. Chrysler Corp., 32 F.3d 1541 (Fed. Cir. 1994), *cert. denied*, 115 S. Ct. 1392 (1995) 10

Keystone Driller Co. v. Northwest Engineering Corp., 294 U.S. 42 (1935) 15

Laitram Corp. v. Rexnord Inc., 939 F.2d 1533 (Fed. Cir. 1991) 23

Landgraf v. USI Film Products, 114 S. Ct. 1483 (1994) 11

Lockwood v. American Airlines Inc., 107 F.3d 1565 (Fed. Cir. 1997) 16

Markman v. Westview Instruments Inc.,
116 S. Ct. 1384 (1996) 11

Minco Inc. v. Combustion Eng'g Inc.,
95 F.3d 1109 (Fed. Cir. 1996) 25

Modine Mfg. Co. v. United States Int'l Trade Comm'n, 75 F.3d 1545 (Fed. Cir.), *cert. denied sub nom. Showa Aluminum Corp. v. Modine Mfg. Co.*, 116 S. Ct. 2523 (1996) . 19

O'Reilly v. Morse,
56 U.S. (15 How.) 62 (1853) 20

Read Corp. v. Portec Inc.,
970 F.2d 816 (Fed. Cir. 1992) 15, 16

Smith v. Mid-Continent Inv. Co.,
106 F.2d 622 (8th Cir. 1939) 15

Sofamor Danek Group Inc. v. DePuy Motech Inc.,
74 F.3d 1216 (Fed. Cir. 1996) 23, 24

Southwall Technologies v. Cardinal IG Co., 54 F.3d 1570 (Fed. Cir.), *cert. denied*, 116 S. Ct. 515 (1995) 18

Valmont Indus. Inc. v. Reinke Mfg. Co.,
983 F.2d 1039 (Fed. Cir. 1993) 21

Vitronics Corp. v. Conceptronic Inc.,
90 F.3d 1576 (Fed. Cir. 1996) 9-12

Wang Laboratories v. Mitsubishi Electronics Inc., 103 F.3d 1571 (Fed. Cir. 1997) 16

Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 117 S. Ct. 1040 (1997) 5, 13, 14, 19, 20

York Prods. Inc. v. Central Tractor Farm & Family Center, 99 F.3d 1568 (Fed. Cir. 1996) 16, 23

Statutes

28 U.S.C. § 1254 2

28 U.S.C. § 1338 4

35 U.S.C. § 112 . . . . . 2, 3, 6, 7, 20-26

Fed. R. Evid. 402 . . . . . 2, 8, 13

Fed. R. Evid. 702 2

Other Authorities

4 Donald S. Chisum, *Patents* § 18.05[2][c] (1997) 15

22 Charles A. Wright & Kenneth W. Graham, Jr., *Federal Practice and Procedure: Evidence* § 5199 (1978) 8

Patent and Trademark Office,
Manual of Patent Examining
Procedure § 2173.05(*l*) 22

IN THE
Supreme Court of the United States
OCTOBER TERM, 1996

NO. -----

SHELLEY K. COLE,
Petitioner,

v.

KIMBERLY-CLARK CORPORATION,
Respondent.

Petition for a Writ of Certiorari to the United States Court of Appeals for the Federal Circuit

---

PETITION FOR A WRIT OF CERTIORARI

Petitioner Shelley K. Cole respectfully prays that a writ of certiorari issue to review the decision of the United States Court of Appeals for the Federal Circuit in this matter.

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. at A1-A21) is reported at 102 F.3d 524. The district court's two orders granting partial summary judgment (Pet. App. at B1-B14, C1-C18) are not reported.

JURISDICTION

The court of appeals denied rehearing on February 18, 1997. The jurisdiction of this Court is invoked under 28 U.S.C. § 1254.

QUESTIONS PRESENTED

(1) Whether the blanket rule adopted by the Federal Circuit Court of Appeals excluding all testimony, including expert testimony, concerning the meaning of terms used in patents, violates the Federal Rules of Evidence and this Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 587 (1993).

(2) Whether prosecution history estoppel can be invoked against a patentholder who has not amended her patent claims, based only upon statements by her patent attorney to the Patent and Trademark Office.

(3) Whether, contrary to many years of circuit court precedent, a patentholder can be denied the protections of 35 U.S.C. § 112, which allows an element in a patent's claims to be described by stating what the element does, because she includes a single word in the claims suggesting a possible structure for the element.

STATUTORY PROVISIONS INVOLVED

Federal Rule of Evidence 402 provides:

> All relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, by Act of Congress, by these rules, or by other rules prescribed by the Supreme Court pursuant to statutory authority. Evidence which is not relevant is not admissible.

Federal Rule of Evidence 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

35 U.S.C. § 112 provides in relevant part:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

STATEMENT

Petitioner Shelley K. Cole was awarded U.S. Patent No. 4,743,239 while raising her four children and running a preschool in Phoenix, Arizona. Cole's patent covers disposable training pants that young children can wear during toilet training. The training pants that Cole invented contain three separate absorbent layers of varying thickness and sides that can be torn easily along a predetermined line so that the pants can be readily and neatly removed if the child soils them. Cole sent Respondent Kimberly-Clark Corporation a copy of her patent application in December, 1986, and just two and a half years later, Respondent began marketing an extremely successful product containing three absorbent layers of varying thickness and sides that can be torn easily along a predetermined line. Cole sued Respondent for infringement of her patent in the United States

District Court for the District of Arizona. The district court's jurisdiction was based on 28 U.S.C. § 1338.

Respondent sought partial summary judgment of noninfringement in the district court. The district court first granted partial summary judgment as to literal infringement but denied it as to infringement by the doctrine of equivalents. On reconsideration, however, the district court also granted partial summary judgment as to infringement by the doctrine of equivalents.

The district court's grant of partial summary judgment was affirmed 2-1 by a divided panel of the Federal Circuit. The panel majority based its affirmance on a finding that Respondent's training pants lacked an element required by all claims of Cole's patent:

> "perforation means extending from the leg band means to the waist band means through the outer impermeable layer means for tearing the outer impermeable layer means for removing the training brief in case of an accident by the user."

The panel majority appears to have held that this element means simply "perforations," and found as a matter of law that Respondent's training pants do not contain perforations. In reaching this result, the panel majority held that "there is no evidence to suggest that 'perforation' has any meaning other than the dictionary definition accepted by the [district court]." Pet. App. at A14. The panel majority chose not to consider the testimony of Cole's two expert witnesses, who were qualified in two different fields of expertise, as to the meaning of "perforation" to those skilled in the art.

Besides arguing that Respondent literally infringes her patent, Cole argued in the alternative that Respondent also infringes her patent under the doctrine of equivalents, because Respondent's training pants include

structures at their sides along which they tear that are equivalent to Cole's "perforation means . . . for tearing." However, the panel majority also rejected this argument, holding that the patent law doctrine of prosecution history estoppel precludes Cole from claiming that her patent covers various equivalents. The panel invoked the doctrine of prosecution history estoppel based not on *amendments* that Cole made to her patent claims — *i.e.*, the action which provided the basis for prosecution history estoppel in this Court's recent decision in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 117 S. Ct. 1040 (1997) — but instead rested the estoppel on mere *arguments* raised by Cole's patent attorney to the Patent and Trademark Office.

Cole's attorney distinguished her claims in the most general sense from three earlier patents which also disclosed designs for disposable diapers and training pants. As to two of these patents, Cole's attorney said generally that they were "not pertinent, structurally" to her claims, but offered no specifics concerning what made them different. Pet. App. at A11. As to the third patent, he stated that its side seams were "substantially different" from Cole's, but never explained specifically how. *Id.* at A11. Cole's attorney's comments could have referred to any of numerous differences that existed between the structure and design of the disposable diapers and training pants described in the prior patents and that of Cole's invention, but none of these were specified. Besides discussing the physical structures of their patented diapers and training pants in detail, two of the three prior patents mentioned, among other methods, a method of manufacturing side seams called "ultrasonic bonding" which Respondent uses to make its training pants. One of these two references stated that ultrasonic bonding was the preferred method of manufacturing side

seams. *Id.* at A15. However, Cole's attorney never even mentioned "ultrasonic bonding" or anything about the method of manufacturing in the Patent and Trademark Office, because this was not a focus of Cole's patent. Nevertheless, on the basis of these facts, the panel majority concluded that Cole was estopped from reading her patent claims to cover — indeed, that she had "surrendered" coverage of — any training pants whose seams are made by ultrasonic bonding. *Id.* at A17.

Cole had also argued for a different result on the ground that 35 U.S.C. § 112, paragraph 6 (the "means-plus-function" provision of the Patent Act) applies to the "perforation means" element. That paragraph allows a patent attorney to describe an element in a patent claim by saying that it is the "means" for achieving a particular function — in this case, the means for "tearing the outer impermeable layer means for removing the training brief in case of an accident by the user." Where a claim element in a patent is set forth this way as a "means-plus-function" claim element under 35 U.S.C. § 112, paragraph 6, it is interpreted as covering the structure described in the patent specification that corresponds to that function (along with its equivalents). Cole pointed out that her patent specification stated that either perforations or "scored sides" could be used to accomplish the task of tearing the training pants, and argued that the structures along the sides of Respondent's training pants that cause them to tear are perforations and/or scored sides as described in her patent (or at least the equivalents of perforations or scored sides).

The panel majority rejected these arguments, breaking with prior precedent of the Federal Circuit and holding that 35 U.S.C. § 112, paragraph 6 does not apply at all to the "perforation means" element of Cole's patent claims because that element "describes the structure

supporting the functions (*i.e.*, perforations)," and therefore cannot qualify as a means-plus-function claim element under 35 U.S.C. § 112, paragraph 6. Pet. App. at A14. The panel majority also mentioned that the claim also cannot qualify as a means-plus-function claim because it sets forth information describing the element's "location (extending from the waist band to the leg band) and extent (extending through the outer impermeable layer)." *Id.* It held that "[a]n element with such a detailed recitation of its structure . . . cannot meet the requirements of the statute." *Id.*

Judge Rader dissented from the panel majority's opinion. He pointed out that the "perforation means" claim element was drafted in the usual language which patent attorneys use to invoke 35 U.S.C. § 112, paragraph 6 (*i.e.*, the word "means" followed by a function — here, "for tearing") and that recent Federal Circuit cases had established that such language raises a presumption that the element is subject to 35 U.S.C. § 112, paragraph 6. Pet. App. at A18-A19. Judge Rader also disagreed with the panel majority's holding on prosecution history estoppel, finding it contrary to Federal Circuit precedent. Pet. App. at A19-A20.

REASONS FOR GRANTING THE WRIT

The issues in this case are central to patent law, and recur in one patent case after another. Patent attorneys' daily practice of drafting patent claims and arguing to the Patent and Trademark Office about their patentability, is changed by the new limitations placed by the panel majority on claim drafting and argument to examiners. What is worse, many patents already drafted, and many patent applications already pending in the Patent and Trademark Office, will have their scope substantially altered by the Federal Circuit's decision in this case,

upsetting settled expectations. In addition, every patent case requires the court to interpret the relevant patent claims, and judges need access to as many sources of information on these subjects as possible. To deny judges the right to consider expert testimony to assist in their interpretation of patent claims will frustrate their ability to accomplish patent claim construction, and it will result in inconsistent treatment of the admissibility of expert testimony between patent and other cases.

I. The Federal Circuit's Per Se Rule Prohibiting Introduction of Expert Testimony Concerning Interpretation of Patent Claims Violates The Federal Rules of Evidence and This Court's *Daubert* Decision

Federal Rule of Evidence 402 requires that all rules which exclude relevant evidence have a constitutional or statutory basis. "[T]he record rather strongly suggests that Congress assumed [in enacting the Federal Rules of Evidence] that, except where the Evidence Rules otherwise provide, there would be no decisional law of evidence." 22 Charles A. Wright & Kenneth W. Graham, Jr., *Federal Practice and Procedure: Evidence* § 5199 (1978).

In this case, the meaning of the terms "perforation" and "perforation means" was disputed. Both sides agreed that the meaning of the terms to persons skilled in the art was relevant to the interpretation of Cole's patent claims. Cole chose to have two expert witnesses construe the terms: one in the field of nonwoven fabrics (Edward A. Vaughn, Ph.D., a Professor of Textiles at Clemson University), and one in the field of ultrasonic bonding and welding (Karl F. Graff, Ph.D., a Professor Emeritus of Welding Engineering at Ohio State University). Respondent did not object to the

declarations of those two expert witnesses, and the district court did not exclude them. Respondent, in contrast, proffered a dictionary definition into evidence. At the time, each of these alternatives was a legitimate choice, implying no forfeiture of rights. Cole could have proffered dictionary definitions that favored her position in the district court. She did not do so, however, thinking her position sufficiently preserved by her experts' testimony.

After the appeal to the Federal Circuit in this case was submitted, that court handed down *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576 (Fed. Cir. 1996). In sweeping language, the Federal Circuit created a per se exclusionary rule, whereby testimony cannot be used to construe the meaning of words in patents except in "rare instances." *Id.* at 1585. Instead, district courts are ordinarily limited to consulting dictionaries, treatises, and the prior art to construe those words, no matter how abstruse and technical they might be. *Id.* at 1584 & n.6.

Without citing *Vitronics*, but apparently relying on it, the opinion of the panel majority in this case stated baldly that "there is *no evidence* to suggest that 'perforation' has any meaning other than the dictionary definition accepted by the [district] court." Pet. App. at A14 (emphasis added). To the contrary, one of Cole's experts, Professor Vaughn, expressly testified that the dictionary definition offered by Respondent was too limited:

> "While this definition may describe one possible type of perforation in absorbent products, it does not describe every possible type of perforation." Ct. App. Jt. App. at 803 (Declaration of Professor Edward A. Vaughn, Ph.D., at ¶ 6). Professor Vaughn even proffered an alternative definition:

> To make perforations, fabric material is removed, displaced, eliminated, reduced, or cut away, leaving a series of holes, small incisions, voids or similar pattern that facilitates tearing or separation along a predetermined line.

Ct. App. Jt. App. at 803 (Declaration of Professor Edward A. Vaughn, Ph.D., at ¶ 5).[1] The panel majority did not even bother to formally exclude Professor Vaughn's critique of Respondent's dictionary definition or Vaughn's or Graff's own definitions from evidence, which would have required the majority to find, on a plain error standard, that the district court had abused its discretion by admitting these items.[2] Rather, for the panel majority, Cole's experts' testimony and definitions amounted to "no evidence" at all; under the per se exclusionary rule of *Vitronics*, this evidence did not even exist.

The words of a patent claim are construed as they would be understood by those skilled in the art to which the patent pertains, unless the specification or file wrapper indicates a different construction. *Intellicall Inc. v. Phonometrics Inc.*, 952 F.2d 1384, 1387 (Fed. Cir. 1992). The testimony of experts, who themselves are skilled in the art and know how those skilled in the

---

[1]Professor Graff testified that: "A person skilled in the art relating to ultrasonic bonding and the use of ultrasonics in connection with polymers, plastics, and other materials would understand the term 'perforation means,' as used in Mrs. Cole's patent, to include perforations, scoring, and other equivalent means to facilitate separation or tearing of material used in a product." Ct. App. Jt. App. at 815 (Declaration of Karl F. Graff, Ph.D., at ¶ 3).

[2]The Federal Circuit reviews evidentiary rulings under an abuse of discretion standard. *Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1547 (Fed. Cir. 1994), *cert. denied*, 115 S. Ct. 1392 (1995).

art speak and write, is relevant to the meaning of those words. This Court in *Markman v. Westview Instruments Inc.*, 116 S. Ct. 1384 (1996), based its decision on the assumption that the patent claim construction process would rely on expert testimony. *See id.* at 1395 (allocating the task of construing claims to the judge because he or she has a "trained ability to evaluate the [expert] testimony in relation to the overall structure of the patent"); *see also id.* at 1390 (speaking of "construing a term of art following receipt of evidence").

The Federal Rules of Evidence were intended to occupy the field. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 587 (1993). Their "'general approach'" to experts was to "'relax[] the traditional barriers to "opinion" testimony.'" *Id.* at 588 (quoting *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 169 (1988)). Federal Rule of Evidence 702 sets the standard for admission of expert testimony, a standard which this Court relied and elaborated upon in *Daubert*. *See* 509 U.S. at 589-95 (discussing the implications of Rule 702 for scientific evidence). Federal Rule of Evidence 402 explicitly requires that exclusionary rules be statutory or constitutional. There is consequently no room for a holding like that of *Vitronics*, adopting an exclusionary rule without setting forth any constitutional or statutory basis. In addition, in light of this Court's ruling in *Daubert*, there is no basis to treat expert testimony differently in patent cases from the way it is treated in other cases.

An important policy reason for making exclusionary rules statutory is precisely to avoid the kind of prejudicial surprise that occurred in this case. A statutory rule would not normally have retroactive effect, *see Landgraf v. USI Film Products*, 114 S. Ct. 1483, 1505 (1994), so that evidence admitted in the district

court could not normally be excluded on appeal on the basis of a new statute. In contrast, when an exclusionary rule (or any other legal rule) is created by adjudication, it must be applied retroactively. *See Harper v. Virginia Dep't of Taxation*, 509 U.S. 86, 89 (1993). By applying the exclusionary rule of *Vitronics* retroactively, the Federal Circuit transformed Cole's decision to use expert evidence in the district court — a perfectly legitimate choice when made — into a forfeiture of her rights.

Sound policy also favors allowing parties to present information about the meaning of words in patent claims through experts, and not just through dictionaries, treatises, and prior art. Dictionaries may be incomplete or out of date, particularly in fast-moving technical fields or fields so specialized that their peculiar vocabulary was never fully captured in a dictionary. Ordinary words may be used in unusual senses in technical fields, so that their definitions in common dictionaries would be not just useless but misleading. Furthermore, while the use of words in treatises or in the prior art may illustrate the variety of meanings which those words have, it is unwise to limit district judges to using only those forms of evidence. Treatises and the prior art use technical vocabulary freely, so that understanding the context in which one word is used in a treatise or prior art reference may require the reader to understand other technical words, a problem for judges who do not have technical training. Furthermore, to understand the full range of meanings of a technical word requires that one collect a large number of usage examples, as lexicographers do. *See, e.g.*, 1 *Oxford English Dictionary* vii (micrographic ed. 1987) (describing the collection of 3.5 million usage examples for the first edition of the dictionary). Such a collection may be good evidence of the meaning of a word, but it is also

precisely the kind of voluminous raw data which experts routinely summarize and render intelligible in American courts, further supporting the view that expert testimony should be used to construe the meaning of words.

For these reasons, this Court should grant Cole's petition for certiorari and consider whether in light of this Court's decision in *Daubert*, the Federal Rules of Evidence allow the Federal Circuit to create a per se exclusionary rule which requires the meaning of words to be determined through particular types of written evidence, and not through expert testimony.

II. Prosecution History Estoppel Can Arise Only From Amendment of A Patent Claim, Not From Mere Attorney Argument

As this Court reaffirmed in *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 117 S. Ct. 1040 (1997), a patent may be infringed either literally or by the doctrine of equivalents. A patent is infringed literally if the words of one of its claims, as interpreted by the courts, describe the device which the accused infringer manufactures. A patent is infringed by the doctrine of equivalents if that device, while falling outside the literal claim language, nonetheless appropriates the invention because the device is an insubstantial variation of that invention. The doctrine of equivalents protects patent owners from the inherent imprecision of language and the inherent uncertainty of judicial interpretation of patent claims.

This Court also reaffirmed in *Warner-Jenkinson* the doctrine of prosecution history estoppel. This Court held that when the Patent and Trademark Office rejects a patent application and the patent applicant attempts to overcome the rejection by amending her patent claims and adding a new element that narrows the patent's

scope, she cannot later apply the doctrine of equivalents to that new element and thereby expand the patent's coverage and nullify the effect of her amendment. 117 S. Ct. at 1051 ("prosecution history estoppel would bar the application of the doctrine of equivalents as to that element"). This rule prevents a patent owner from amending and narrowing her patent application one day in order to obtain a patent and then seeking to recapture in the courts the very patent coverage that she gave up in the Patent and Trademark Office to obtain her patent.

The prosecution history estoppel that brought down Shelley Cole's patent was different, however, from that reaffirmed by this Court in *Warner-Jenkinson*. It was not based on any *amendment* of Cole's patent claims. To the contrary, it was based on *argument* made by Cole's attorney to the Patent and Trademark Office that her existing patent claims *did not need to be amended in order to be patentable*. Moreover, these were not very specific statements that one would expect to have operative effect in defining the precise scope of Cole's patent: the attorney remarked that two earlier patents were "not pertinent, structurally" to Cole's patent claims, but never explained why not, and he remarked that the side seams in another earlier patent were "substantially different" from those in Cole's patent, but never explained why. Pet. App. at A11. Yet the Federal Circuit held, based on these general statements, that Cole completely lost her right to invoke the doctrine of equivalents.

Traditionally, prosecution history estoppel was based, as in *Warner-Jenkinson*, on amendments to the patent claims made in response to a rejection by the Patent and Trademark Office. Before the creation of the Federal Circuit in 1982, the courts of appeal were in conflict as to whether prosecution history estoppel could be based

on attorney argument. *See* 4 Donald S. Chisum, *Patents* § 18.05[2][c] (1997) (collecting cases).[3] Judge Learned Hand stated the case against estoppel by attorney argument in this fashion:

> If the doctrine of the "integration" of a written instrument has any basis at all, surely it should apply to [patents], for if a patent can be construed only by threading one's way through all the verbal ingenuities which casuistical solicitors developed to circumvent the objections of examiners, a labyrinth results, from which there is no escape.

Catalin Corp. v. Catalazuli Mfg. Co., 79 F.2d 593, 594 (2d Cir. 1935); *accord* 4 Donald S. Chisum, *Patents* § 18.05[2][c], at 18-170 (1997).

More recently, however, the Federal Circuit has held in a number of cases that attorneys' arguments to the Patent and Trademark Office create prosecution history estoppel, even if there has been no amendment. *See, e.g., Read Corp. v. Portec Inc.*, 970 F.2d 816, 824 (Fed. Cir. 1992). In fact, this type of estoppel has become a major issue in patent litigation today. Among

---

[3]It appears that this Court last considered the issue of prosecution history estoppel based on attorney argument in *Keystone Driller Co. v. Northwest Engineering Corp.*, 294 U.S. 42 (1935). This Court did not resolve the issue at that time, but *expressly distinguished between estoppel by attorney argument and estoppel by amendment,* stating: "[w]e do not attribute the force of an estoppel to what was said by the claimant in seeking to avoid the prior art cited against his broad claims, but we do apply the principle that where such broad claims are denied and a narrower substituted, the patentee is estopped to read the granted claim as the equivalent of those which were rejected." *Id.* at 48. *See also Smith v. Mid-Continent Inv. Co.*, 106 F.2d 622, 627 (8th Cir. 1939) (reading this Court's decision in *Keystone Driller* to hold that attorney argument cannot give rise to prosecution history estoppel).

patent opinions of the Federal Circuit published in the last ten volumes of the *Federal Reporter* (99 F.3d through 108 F.3d), *seven* of the sixteen opinions dealing with infringement issues discussed prosecution history estoppel by attorney argument.[4]

The short history of prosecution history estoppel by attorney argument in the Federal Circuit shows how right Judge Hand was in characterizing it as a "labyrinth . . . from which there is no escape." Perhaps the greatest difficulty is that it can be used to punish the patent applicant for pointing out even the most glaring differences between her claims and the prior art. Examiners often cite off-point prior art, which lacks a number of the elements of the claimed invention. *See, e.g., Read Corp. v. Portec, supra*, 970 F.2d at 824 ("Read distinguished . . . the Deister reference because of a wealth of differences."). If the attorney simply states that the prior art reference is quite different and leaves the examiner to make the comparison, an accused

---

[4]*See Lockwood v. American Airlines Inc.*, 107 F.3d 1565, 1573 (Fed. Cir. 1997); *American Permahedge Inc. v. Barcana Inc.*, 105 F.3d 1441, 1445 (Fed. Cir. 1997); *Ekchian v. Home Depot Inc.*, 104 F.3d 1299, 1303-04 (Fed. Cir. 1997); *Wang Laboratories v. Mitsubishi Electronics Inc.*, 103 F.3d 1571, 1578 (Fed. Cir. 1997); *Alpex Computer Corp. v. Nintendo Co.*, 102 F.3d 1214, 1221-22 (Fed. Cir. 1996); *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 532 (Fed. Cir. 1996); *York Prods. Inc. v. Central Tractor Farm & Family Center*, 99 F.3d 1568, 1575 (Fed. Cir. 1996); *Insituform Techs. Inc. v. Cat Contracting Inc.*, 99 F.3d 1098, 1108 (Fed. Cir. 1996), *cert. denied*, 65 U.S.L.W. 3725, 3727 (U.S. Apr. 28, 1997). In an eighth opinion, *J.T. Eaton & Co. v. Atlantic Paste*, 106 F.3d 1563, 1566-67 (Fed. Cir. 1997), the panel majority based its claim construction on a reading of attorney arguments in the prosecution history which the dissenting judge called "disingenuous," *id.* at 1577 (Rader, J., dissenting).

infringer can later argue that that general distinction gives rise to many potential (and unintended) estoppels. This is, in fact, similar to what happened in Cole's case, trapping her in the labyrinth Judge Hand described.

Cole's patent attorney made statements to the Patent and Trademark Office about three prior art patents, which discussed many facets of how training pants are designed and made. These patents also mentioned a number of different techniques for joining together the seams of the training pants, one of which was ultrasonic bonding, the technique used in Respondent's products.

With respect to one of the patents, Strohbeen, the attorney pointed out that the seams of the invention (which are not even recited as an element of the claims) differed *in an unspecified way* from Strohbeen's. He said nothing about ultrasonic bonding, or about any method of manufacturing seams; there was nothing whatever in his statement to suggest that he meant that the seams of the invention differed from Strohbeen's on account of how they were manufactured. With respect to the other two patents, the attorney said even less; he did not even mention the seams, let alone the method used to manufacture them.

The Federal Circuit nonetheless read the attorney's reference to seams as alluding to a particular element of Cole's asserted claim, the means for tearing the pant once it has become soiled, presumably because that element is located on the seams in the accused device. The Federal Circuit further read the attorney's statement that Cole's seams are different from the Strohbeen patent's as "surrender[ing]" and "relinquish[ing]" all ultrasonic bonded seams (Pet. App. at A17), even though the attorney did not say anything about ultrasonic bonding or about any other method of making seams, but

only said that her seams were different in some unspecified way from those of the Strohbeen patent.

An analogy may make it easier to understand how far-fetched the Federal Circuit's reading of the attorney arguments was in this case. If a district court relied on three alternative grounds of decision in reaching a ruling, and the court of appeals affirmed without opinion, it would be inappropriate to infer that the court of appeals agreed with all of the three alternative grounds of decision, since agreement with any one of the three would have been enough to affirm. Similarly, in this case, given the number of alternative differences that existed between the Strohbeen patent and Cole's seams, one cannot infer from her attorney's generalized statement about them that Cole "surrendered" and "relinquished" one very specific characteristic recited in Strohbeen, use of ultrasonic bonding to manufacture the seams.

When presented with off-point prior art, a patent attorney would be no better off if he or she attempts to offer specific distinctions for each such reference. Like an appellate advocate distinguishing a case cited by his or her opponent, the patent attorney in such a situation may instinctively want to point out each and every difference between the prior art reference the examiner cited and the patent claims. If attorney arguments give rise to prosecution history estoppel, however, this natural instinct can become a very dangerous practice, because each point of distinction, no matter how obvious and glaring it might be, can be later argued to have created additional prosecution history estoppel. *See, e.g.*, *Southwall Technologies v. Cardinal IG Co.*, 54 F.3d 1570, 1583 (Fed. Cir.) (where the patent attorney pointed out two differences between the prior art and the

invention, two different estoppels arose), *cert. denied*, 116 S. Ct. 515 (1995).

Before *Warner-Jenkinson*, the ill effect of raising many bases of distinction was mitigated by the Federal Circuit's view that an estoppel does not necessarily rule out the application of the doctrine of equivalents. In the Federal Circuit, prosecution history estoppel was not a yes or no proposition. Rather, the estoppel had a scope, determined on a case-by-case basis by taking account the totality of the circumstances, so that a patentee might incur estoppel and still be entitled to equivalents. *See, e.g., Modine Mfg. Co. v. United States Int'l Trade Comm'n*, 75 F.3d 1545, 1556 (Fed. Cir.), *cert. denied sub nom. Showa Aluminum Corp. v. Modine Mfg. Co.*, 116 S. Ct. 2523 (1996).

Warner-Jenkinson changed the landscape. This Court held in no uncertain terms that "prosecution history estoppel would bar the application of the doctrine of equivalents" to an element to which it applies. 117 S. Ct. at 1051. This rule makes the application of prosecution history estoppel much more certain and predictable. Combined with estoppel by attorney argument, however, it also ties the advocate's hands when dealing with the Patent and Trademark Office, because each element of the claim which he or she distinguishes from the prior art reference loses its entitlement to equivalents. The bright-line rule set forth in *Warner-Jenkinson*, that estoppel bars the application of the doctrine of equivalents, thus renders prosecution history estoppel by attorney argument extraordinarily harsh and dangerous for the inventor.

Allowing prosecution history estoppel by attorney argument also makes the true scope of patent claims much more uncertain. The Federal Circuit's decision in this case is a striking example of this added uncertainty.

For these reasons, this Court should grant Cole's petition for certiorari and consider whether prosecution history estoppel should not be limited to the situation in *Warner-Jenkinson*, where there has been an amendment to the claims.

III. The Safe Harbor of Section 112, Allowing Patent Attorneys to Describe Claim Elements By Saying What Function They Accomplish, Should Not Be Closed Off Because A Single Word Suggesting Structure is Recited

All patent systems have to deal with the issue of patent claims which recite only the goal to be achieved and not the way in which that goal is to be achieved. Samuel F.B. Morse, inventor of the telegraph, was granted such a claim, addressed to "the use of the motive power of . . . electro-magnetism . . . for making or printing intelligible signs, characters, or letters at any distance." *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 112 (1853).

Claiming something by saying what function it serves is called functional claiming in patent law. Courts have long recognized that functional claiming has dangers. *See, e.g., O'Reilly*, 56 U.S. at 113 (Morse's broad claim "shuts the door against the inventions of other persons"). Functional claiming also has benefits, however. Often an inventor conceives an element of her invention in terms of the role which it plays in the overall device. There may be many different possible elements that can play that role. Trying to recite them all in a patent claim would be confusing and would also run the danger of omitting a possibility and losing vital patent coverage. Functional claiming is a superior alternative in such situations.

Given that functional claiming has both dangers and benefits, Congress in 1952 crafted a careful compromise, set forth in the sixth paragraph of 35 U.S.C. § 112:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Under this provision, a patent attorney can describe an element in a claim by saying what the element does (*i.e.*, its function). If that choice is made, then the element is construed to cover the structure, material, or acts described in the specification to accomplish that function, and their equivalents.

The compromise embodied in § 112, paragraph 6 was intended to provide a safe harbor for the authors of patent claims. It was in part a reaction to this Court's decision in *Halliburton Oil Well Cementing Co. v. Walker*, 329 U.S. 1, 8 (1946), which flatly barred the use of functional claiming for "the most crucial element" of a patent claim, holding that the great variety of devices which are covered by such functional claims renders them overly vague. By setting forth a definite rule of interpretation for functional claims, § 112 paragraph 6 saved them from the danger of invalidity under *Halliburton*. *See Valmont Indus. Inc. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1042 (Fed. Cir. 1993) (recounting the origins of § 112, paragraph 6).

Cole's attorney in this case did what § 112, paragraph 6 was designed to let him do — he described the "means . . . for tearing" element by saying what it did. He wrote that it was a "means . . . for tearing the outer

impermeable layer means for removing the training brief in case of an accident by the user." If § 112, paragraph 6 applied, the element would cover what is disclosed in the patent specification to accomplish the goal of facilitating tearing, and its equivalents. Cole's patent specification discloses two means of accomplishing that goal: by making perforations or by including "scored sides" in the training pants. Buttressed by testimony from her experts, Cole contended that the indentations along which Respondent's training pants tear are at a minimum equivalent to perforations and scored sides.

Unfortunately, Cole's attorney added some further language to the "means . . . for tearing" element. He added the single word "perforation" at the beginning. He also added a description of how the element relates to the other recited elements of the claim. In adding the latter description, he was complying with a requirement set forth in the Patent and Trademark Office's *Manual of Patent Examining Procedure* § 2173.05(*l*), which states that a patent claim should indicate how the elements that make up the claimed invention are connected to each other.

The panel majority below noted that the word "perforation" suggests a structure which can accomplish the function of the "means . . . for tearing element." It then held that 35 U.S.C. § 112, paragraph 6 does not apply at all to the "means . . . for tearing" element of Cole's patent claims because that element "describes the structure supporting the functions (i.e., perforations)." Pet. App. at A14. According to the panel majority, a

single word, "perforation," deprived Cole of the protection of § 112, paragraph 6.[5]

The panel majority's holding was not only surprising, but also in conflict with prior decisions of the Federal Circuit itself. In *York Products Inc. v. Central Tractor Farm & Family Center*, 99 F.3d 1568 (Fed. Cir. 1996), the Federal Circuit had held that "use of the word 'means' triggers a presumption" that the inventor sought to invoke § 112, paragraph 6. Judge Rader's dissent below cited *York Products* for this proposition (Pet. App. at A18), but the panel majority ignored it. Moreover, in *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991), the Federal Circuit held that "[t]he recitation of some structure in a means plus function element does not preclude the applicability of section 112(6)."

Furthermore, other Federal Circuit cases had held that § 112, paragraph 6 applied to elements which described structure supporting their function. For example, in *Sofamor Danek Group Inc. v. DePuy Motech Inc.*, 74 F.3d 1216 (Fed. Cir. 1996), a different panel of the Federal Circuit had found that § 112, paragraph 6 applied to the element "body attaching means for attaching the implant to a rod, said body attaching means

---

[5]The panel majority tried to bolster its holding by noting that the "location" and "extent" of the "means . . . for tearing" were also recited. However, because the text of § 112, paragraph 6 makes no reference whatsoever to location or extent, recital of location or extent could not take an element outside of the protections of that paragraph. Furthermore, a subsequent panel of the Federal Circuit has interpreted the panel majority's holding in this case to mean simply that the recital of "definite" structure supporting the function takes a claim element out of § 112, paragraph 6. *Fonar Corp. v. General Electric Co.*, 107 F.3d 1543, 1551 (Fed. Cir. 1997).

having two side branches defining a channel at both sides . . . in order to be able to receive the rod." The element clearly contained a description of a definite structure supporting the function — *i.e.*, "two side branches defining a channel" — but this did not take the claim element out of § 112, paragraph 6. *Id.* at 1220.

Likewise, in *Interspiro USA Inc. v. Figgie International Inc.*, 18 F.3d 927, 930-31 (Fed. Cir. 1994), a different panel of the Federal Circuit found that § 112, paragraph 6 applied to the claim element "means for establishing a gauge pressure in said inlet chamber *including a movable member mounted in said housing*" (emphasis added).[6] The presence of definite structure, a "movable member," and a location for that structure, "mounted in said housing," did not take the claim out of § 112, paragraph 6. Similarly, in *Intellicall Inc. v. Phonometrics Inc.*, 952 F.2d 1384 (Fed. Cir. 1992), another Federal Circuit panel held that "call cost register means, including a digital display for providing a substantially instantaneous display" was subject to § 112, paragraph 6. The presence of definite structure which performs the function — *i.e.*, "call cost register" and "digital display" — did not take the claim element out of § 112, paragraph 6. *Id.* at 1387-89.

Sound policy supports the outcomes of *Sofamor Danek*, *Interspiro*, and *Intellicall*, because there are often good reasons to recite some structure even if one is describing a patent claim element primarily in terms of its function. One reason is to comply with the Patent

---

[6]The full text of the claim elements is set forth in the district court decision *Interspiro USA Inc. v. Figgie International Inc.*, 815 F. Supp. 1488, 1505, 1508 (D. Del. 1993), *aff'd*, 18 F.3d 927 (Fed. Cir. 1994).

and Trademark Office requirement that a claim set forth the connections between the different elements which it recites. The most natural way to comply with this requirement is often to recite the structural relationship between those elements.

The history of § 112, paragraph 6 also supports the view that patent attorneys should be allowed to recite some structure in claims subject to that paragraph. Section 112, paragraph 6 was enacted because this Court in *Halliburton* found that functional claiming could cover so many possibilities that the claims would be impossible to interpret. If a claim element recites both function and some structure, the recital of some structure generally *clarifies* its meaning, rendering it more understandable, in line with the policy objective of § 112, paragraph 6.

For these reasons, this Court should grant Cole's petition for certiorari and consider whether 35 U.S.C. § 112, paragraph 6 ceases to apply where a patent attorney expresses an element of a claim by saying what the element's function is, but also adds some language suggesting a structure for the element.

IV. The Issues Raised In This Petition Are Important

The issues raised in this petition merit this Court's attention because they are so central and recur so often.[7] Claim construction is "the central issue of nearly every patent appeal." *Minco Inc. v. Combustion Eng'g Inc.*, 95 F.3d 1109, 1114 (Fed. Cir. 1996) (per curiam). The meaning of words to specialists in the field to which the

---

[7]Footnote 4 *supra* and accompanying text show, for example, that prosecution history by attorney argument was invoked in close to half of the Federal Circuit's recent published decisions regarding infringement.

patent pertains is the touchstone of claim interpretation. A nonstatutory exclusionary rule ties district courts' hands in trying to determine that meaning. Furthermore, a great many patents have been drafted with § 112, paragraph 6 in mind, and the panel majority's holding below thwarts the drafters' intentions in many of those patents. Finally, the most astonishing estoppels are being derived from attorney arguments before Patent and Trademark Office, reading attorneys' words in ways that they could never have imagined possible when they wrote them, and resulting in enormous losses of patent owners' rights. This Court should grant certiorari to set the law on a proper course in these critical areas.

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,

Morgan Chu
(*counsel of record*)
Richard de Bodo
Gary N. Frischling
IRELL & MANELLA LLP
1800 Avenue of the Stars
Suite 900
Los Angeles, CA 90067
(310) 277-1010

APPENDIX A

APPENDIX A

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 95-1505

SHELLEY K. COLE,
Plaintiff-Appellant,
v.
KIMBERLY-CLARK CORPORATION,
Defendant-Appellee.

DECIDED: December 6, 1996

Before RICH, NEWMAN, and RADER, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* RICH.
Dissenting opinion filed by *Circuit Judge* RADER.

RICH, *Circuit Judge*.

Plaintiff-appellant Shelley K. Cole (Cole) appeals from a judgment of the U.S. District Court for the District of Arizona in a patent infringement case, *Cole v. Kimberly-Clark Corp.*, No. CIV 93-2010 (D. Ariz. filed 27 July 1995). The district court entered the judgment against Cole following its grant of a summary judgment motion by defendant-appellee Kimberly-Clark Corporation (K-C). The district court held that K-C's accused products do not literally infringe Cole's U.S. Patent No. 4,743,239 ('239 patent), and that Cole's

claims for infringement under the doctrine of equivalents are barred by prosecution history estoppel. We affirm.

I
BACKGROUND

The '239 patent issued 10 May 1988 and is entitled, "Disposable Brief Having an Area of Relatively Thin Absorbent Material and an Area of Relatively Thick Absorbent Material." Briefs are close-fitting, legless underpants. The claimed invention consists of a disposable brief for use during toilet training. Among other features, the claimed brief has a combination of three separate absorbent layers of varying thickness and sides that can be easily torn open so that a soiled brief can be removed without pulling it over the legs. The only independent claim of Cole's '239 patent reads, with our emphasis, as follows:

> 1. A disposable training brief comprising, in combination:
> outer impermeable layer means;
> first absorbent layer means, including a first relatively thin outer absorbent layer and a first relatively thin inner absorbent layer, substantially coextensive with the outer impermeable layer;
> second absorbent layer means including a relatively thick absorbent layer secured to the first absorbent layer means and disposed between the first outer absorbent layer and the first inner absorbent layer for providing a relatively highly absorbent layer;
> waist band means for securing the training brief to the user;

leg band means through which the user's legs extend;
perforation means extending from the leg band means to the waist band means through the outer impermeable layer means for tearing the outer impermeable layer means for removing the training brief in case of an accident by the user, and
side zones on the outer impermeable layer means adjacent to the perforation means at which the first absorbent layer means terminates.

On 1 December 1986, slightly less than one month after she had filed her patent application, Cole sent a copy of it to K-C with a letter explaining her idea for disposable training briefs. K-C, however, was developing its own disposable training brief and was apparently not interested in Cole's brief.

In 1989, K-C began marketing disposable training briefs that have three absorbent layers of varying thickness and sides that can be easily torn open. Cole filed suit against K-C on 19 October 1993, alleging that K-C's Huggies® Pull-Ups® and Huggies® GoodNites® (accused products) infringe the '239 patent. Both Cole's claimed design and K-C's accused products can be torn apart along the sides.

K-C filed a motion for summary judgment of noninfringement on 28 July 1994. By an order entered 31 March 1995, the district court ruled that K-C was entitled to summary judgment on Cole's literal infringement claim, but not on her claim of infringement under the doctrine of equivalents.

As to the literal infringement claim, the district court found that there was no genuine issue of material fact with respect to Cole's contention that K-C's training briefs employ "perforation means." It found that "[t]he

only reasonable reading of this language is that the sides of her invention tear by means of a perforation, but K-C's accused products do not have perforations." Instead, K-C's training briefs "have seams which have been bonded together and are capable of tearing. When the side seams are torn, it becomes obvious that the sides are not held together by perforations as they leave a jagged tear line." The district court thus granted summary judgment of no literal infringement by K-C after first concluding that, "as used in Cole's patent, a 'perforation means' is a perforation," and then concluding that none of K-C's accused products includes perforations.

As to the claim of infringement under the doctrine of equivalents, the district court stated in its 31 March Order that genuine issues of material fact existed with respect to equivalents and prosecution history estoppel, because of conflicting expert testimony. The court ruled that it could not resolve the prosecution history estoppel arguments in the context of a motion for summary judgment and declined to hold that Cole was precluded by prosecution history estoppel from claiming a range of equivalents that would include K-C's accused products. The court found that a factual issue existed with respect to how one of ordinary skill in the art would interpret Cole's distinguishing, in the PTO, of U.S. Patent No. 4,619,649 (the Roberts patent), which describes disposable briefs that use "perforate side seams" to facilitate tearing and removal. The court also declined to hold on summary judgment that an estoppel arose from Cole's distinguishing, in her 25 April 1991 reexamination petition, of U.S. Patent No. 4,610,681 (the Strohbeen patent) and U.S. Patent No. 4,205,679 (the Repke patent)—both of which disclose disposable briefs with ultrasonic-bonded side seams.

Both Cole and K-C moved for reconsideration. By an order entered 20 June 1995, the district court granted K-C's motion and denied Cole's. On the issue of literal infringement, Cole argued that the district court erred because the "perforation means . . . for tearing" element of her claims was a "means-plus-function" element under 35 U.S.C. § 112, ¶ 6, and thus must be construed to encompass all embodiments disclosed in the specification and their equivalents. The specification of the Cole patent refers to scoring, scored sides, and perforations. The court found, however, that the "perforation means" element cannot qualify as a means-plus-function element under section 112, ¶ 6, because it includes the word "perforation" and therefore refers to a definite structure to perform the tearing function. Thus, it adhered to its prior grant of K-C's motion for summary judgment of no literal infringement.

On reconsideration of the issue of infringement under the doctrine of equivalents, however, the district court did not, in its 20 June Order, adhere to its prior ruling. Here, K-C urged reconsideration in view of this court's decision in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 34 USPQ2d 1321 (Fed. Cir.) (in banc), *aff'd*, 116 S. Ct. 1384, 38 USPQ2d 1461 (1996), which issued less than a week after the district court initially ruled. K-C argued that *Markman*'s announcement that prosecution history is to be evaluated as a matter of law in the context of claim construction made clear that prosecution history estoppel also presents a legal question for the court. K-C also argued that the district court erred in its evaluation of Cole's effort to distinguish the Strohbeen and Repke patents by focusing only on what those patents claimed, rather than what they disclosed. The district court agreed with these arguments. It then examined the prosecution history of Cole's '239 patent,

particularly with regard to the Roberts, Strohbeen, and Repke patents. The court concluded that, because of prosecution history estoppel, "perforation means" cannot be read to include the seams formed by the ultrasonic welds in K-C's accused products. The district court therefore also granted K-C's motion for summary judgment of no infringement under the doctrine of equivalents.

After K-C elected not to pursue its counterclaims seeking a declaratory judgment that Cole's patent is invalid and unenforceable, the district court directed entry of judgment on Cole's complaint in a final judgment dated 27 July 1995. This appeal followed.

II
INFRINGEMENT

A district court should approach a motion for summary judgment on the fact issue of infringement with great care. *Palumbo v. Don-Joy Co.*, 762 F.2d 969, 974, 226 USPQ 5, 7 (Fed. Cir. 1985) (citing *D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1573, 225 USPQ 236, 238 (Fed. Cir. 1985)), *overruled on other grounds by Markman*, 52 F.3d 976-79, 34 USPQ2d at 1327-29. Our review of a grant of summary judgment is plenary. *Keystone Retaining Wall Sys., Inc. v. Westrock, Inc.*, 997 F.2d 1444, 1449, 27 USPQ2d 1297, 1301 (Fed. Cir. 1993). We must determine whether "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c).

The district court properly noted that analysis of patent infringement involves two steps: (1) claim construction to determine what the claims cover, i.e.,

their scope, followed by (2) determination of whether the properly construed claims encompass the accused structure. We review step (1) *de novo* in a summary judgment case, just as we would after a full trial. *Markman*, 52 F.3d at 979, 34 USPQ2d at 1329 ("Because claim construction is a matter of law, the construction given the claims is reviewed *de novo* on appeal."). Our review of step (2) is, however, different after a district court grants a motion for summary judgment of noninfringement than it would be after a full trial.

As to step (2), in a summary judgment case like this one, we first determine *de novo* whether any "genuine issue as to any material fact" exists. We agree with the district court that there is no genuine issue as to any material fact in this case. Therefore, after construing claim 1, we will decide *de novo* whether K-C was "entitled to a judgment as a matter of law" (i.e., whether K-C cannot as a matter of law infringe the properly construed claims of Cole's patent).[1]

A. Claim Construction

The '239 patent includes nine product claims, and claim 1, quoted in its entirety above, is the only

---

[1]If we were reviewing whether the properly construed claims encompass the accused structure after a full trial, our standard of review would not be *de novo* as it is here. If this were an appeal after a bench trial, we would review the district court's determination of whether the properly construed claims encompass the accused structure for clear error. *See* Fed. R. Civ. P. 52(a); *Markman*, 52 F.3d at 977, 34 USPQ2d at 1327. If this were an appeal after a jury trial, we would review the jury's determination of whether the properly construed claims encompass the accused structure and decide whether that determination is supported by substantial evidence. *See Markman*, 52 F.3d at 975, 34 USPQ2d at 1326.

independent claim. The following three subsections recount prosecution history, and the fourth subsection contains our construction of the claimed "perforation means."

1. Prosecution of the Application Leading to the '239 Patent

On 18 March 1987, the patent examiner rejected claims 1, 2, 5-8, and 10 of Cole's application under 35 U.S.C. § 102(a) or (e) as anticipated by Roberts. Additionally, claims 3, 4, and 9 were rejected under 35 U.S.C. § 103 as being unpatentable over Roberts in view of Johnson.

The Roberts patent describes the problem of removing soiled training pants by sliding them down the child's legs. It solves that problem "by providing side portions with a perforate seam or a chain stitched seam . . . so that the seams can be readily split apart from the waistband to the leg band on both sides thereby providing for easy removal of the training pants." The "perforate side seam . . . is formed by overlapping and using a side edge portion . . . of the outer lining . . . with similar edge portion . . . then providing perforations . . . to allow separation of the fused area by tearing same." Separation of the chain stitch seam is accomplished by pulling the stitches out and separating the front overlap of the back portion of the brief. The Johnson patent was not at issue in the district court and, accordingly, we will not discuss it further here.

In an amendment dated 16 June 1987, Cole responded to the rejections by amending her claims to include more details about the absorbent layers of her training pants. Cole also discussed Roberts as follows:

> It will be noted that the Roberts patent discloses overlapping edges at the sides between

> the waist bands [sic] and the leg bands, and the overlapping layers are stitched together. The stitched seams can not be readily torn apart in the Roberts patent, but the apparatus of the present invention utilizes perforations to allow the training brief to be readily torn so as to expedite the removal of the training brief. It is respectfully submitted that this feature of the training briefs of the present invention is neither suggested nor taught by the Roberts patent. It will also be noted that the Examiner made no specific comment concerning this feature in his rejection.

On 5 August 1987, the examiner issued a notice of allowance of Cole's application as amended, without comment.

2. The 1991 Request for Reexamination of the '239 Patent

On 25 April 1991, Cole submitted a first request for reexamination of her patent. Cole cited the Strohbeen patent as well as the four patents cited during the prosecution of the Strohbeen patent, including the Repke patent. The other three patents cited were not at issue in the district court and consequently will not be discussed here.

The Strohbeen patent issued in September 1986 to two K-C employees. The patent describes their invention as an improvement over the disposable brief disclosed in U.S. Patent No. 4,641,381 (the Heran patent). The Heran patent discloses a disposable brief with the inner layer and outer layer of the cover "bonded to one another by any means appropriate for the specific materials selected for the two layers." Heran explains that a useful construction for the side seals is a manually tearable seam. "This can be obtained by bonding the

contacting side edge portions along a narrow bond within the side seam portions." Heran goes on to say that "[o]ne way to make a seam of this type is to bond the contacting side portions by suitably controlled sonic sealing . . . ."

The Strohbeen invention improved on the Heran design by turning the side seams outward, away from the wearer's body, which simplified the manufacturing process and removed a potential source of skin irritation to the wearer. As in Heran, the Strohbeen side seams could be formed by sonic sealing. The patent states: "A particularly preferred system for the invention is found to be ultrasonic sealing. It has been found that an ultrasonic sealing anvil having a plurality of lines closely spaced together such that four sealing lines may be fit within the preferred space between 1/8 to 3/16" is particularly desirable. The sealing lines may be discontinuous, forming dashed lines." The ultrasonic-bonded seams can be torn to permit removal of the training pant.

In her reexamination petition, Cole addressed Strohbeen as material "only to the extent that both patents ['239 and Strohbeen] deal with disposable underpants garments and multiple absorbent layers. Structurally, the [Strohbeen] patent is not believed to be material to the claimed subject matter of the instant patent except for multiple absorbent layers." Cole further stated that the Strohbeen patent "appears to be drawn primarily to the side seams," but concluded that "[t]he side seams of the [Strohbeen] patent are substantially different from the side seams of the instant '239 patent." This was Cole's only statement regarding the side seams of the Strohbeen patent.

Cole's 25 April 1991 reexamination request also addressed the Repke patent, which is assigned to Johnson

& Johnson and discloses a disposable brief with separable sides. The Repke specification identifies a number of techniques for forming the side seams of its brief, including adhesive bonding and sonically sealed strips. Both methods of forming side seams allow tearing of the seams for removal when the brief becomes soiled. Cole commented on Repke's side seams in her reexamination request as follows:

> Side seams [of the Repke patent], which extend between leg cutout portions and the waist, are adhesively secured together. Several different embodiments of side seam constructions are illustrated. The different side seam embodiments including dovetailing, and butting, and variations thereof. A common characteristic of the side seams is that there are continuous adhesive beads [sic, bonds] of some type of adhesive, hot-melt elastic, or the like.

She also stated that Repke was "not believed to be pertinent, structurally, to any of the claims in [her] '239 patent."

On 10 July 1991, the examiner denied Cole's first request for reexamination. The examiner stated that the patents cited by Cole "are not material to the examination of the instant patent claims since the essential features of the claims . . . are not present in the cited patents." More specifically, the examiner stated that, *inter alia*, the "perforation means" are not disclosed in the cited patents.

3. The 1993 Request for Reexamination of the '239 Patent

On 4 January 1993, Cole filed a second request for reexamination citing the Heran patent, described above, which is assigned to K-C. Cole stated, "[s]tructurally, the [Heran] patent is not believed to be material to the claimed subject matter of the ['239] patent except possibly for having tearable side seams."

On 23 February 1993, the examiner denied Cole's second request for reexamination, stating that "although Heran et al does disclose the garment as having tearable side seams they do not include perforation means extending from the leg band means to the waist band means through the outer impermeable layer."

In its decision, the district court did not specifically rely upon the second reexamination request and Cole's comments about the Heran patent.

4. Construction of "Perforation Means"

For purposes of this appeal, we focus our attention on the fifth element of claim 1, which reads,

> perforation means extending from the leg band means to the waist band means through the outer impermeable layer means for tearing the outer impermeable layer means for removing the training brief in case of an accident by the user.

The district court correctly ruled that the claimed "perforation means . . . for tearing" is not a means-plus-function element under § 112, ¶ 6, which reads as follows:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such

> claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6 (1994). To invoke this statute, the alleged means-plus-function claim element must not recite a definite structure which performs the described function. Patent drafters conventionally achieved this by using only the words "means for" followed by a recitation of the function performed. Merely because a named element of a patent claim is followed by the word "means," however, does not automatically make that element a "means-plus-function" element under 35 U.S.C. § 112, ¶ 6. *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 19 USPQ2d 1367 (Fed. Cir. 1991), cited in the dissenting opinion, creates no presumption to the contrary. The converse is also true; merely because an element does *not* include the word "means" does not automatically prevent that element from being construed as a means-plus-function element. *See, e.g., Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 957, 220 USPQ 592, 597 (Fed. Cir. 1983) (construing functional language introduced by "so that" to be equivalent to "means for" claim language), *cert. denied*, 469 U.S. 835 (1984); 1162 O.G. 59, 59 (17 May 1994) (examination guidelines stating that the term "means" is not required to invoke § 112, ¶ 6). We decide on an element-by-element basis, based upon the patent and its prosecution history, whether § 112, ¶ 6 applies. *See Palumbo*, 762 F.2d at 975, 226 USPQ at 8 (Fed. Cir. 1985) (courts should consider prosecution history when construing "means-plus-function" claims).

The drafter of claim 1 in the '239 patent was clearly enamored of the word "means": six of seven elements in that claim include the word "means," which occurs in

the claim fourteen times. We find, however, no reason to construe any of the claim language in claim 1 as reciting means-plus-function elements within the meaning of § 112, ¶ 6. For example, the "perforation means . . . for tearing" element of Cole's claim fails to satisfy the statute because it describes the structure supporting the tearing function (i.e., perforations). The claim describes not only the structure that supports the tearing function, but also its location (extending from the leg band to the waist band) and extent (extending through the outer impermeable layer). An element with such a detailed recitation of its structure, as opposed to its function, cannot meet the requirements of the statute. Here, the claim drafter's perfunctory addition of the word "means" did nothing to diminish the precise structural character of this element. It definitely did not somehow magically transform this element into a § 112, ¶ 6, "means-plus-function" element.

The district court correctly recognized that words in a patent claim are construed as they would be understood by a reader skilled in the relevant art unless it appears that the inventor used the words differently. Since there is no evidence to suggest that "perforation" has any meaning other than the dictionary definition accepted by the court, we look to that definition, which reads as follows:

> a hole, or one of a number of holes, bored or punched through something, as those between individual postage stamps of a sheet to facilitate separation.

Webster's Encyclopedic Unabridged Dictionary (1989). We construe the "perforation means . . . for tearing" to mean "perforations" as did the district court. We further construe "perforations" in view of the above dictionary definition.

Cole is also bound by her representations to the PTO during the prosecution of the '239 patent. Therefore, we next consider what effect the prosecution history of the '239 patent has, if any, on our construction of "perforation means."

Subsection II(A)(1) above discusses how Cole distinguished the Roberts patent. We believe Cole erred in her response to the first office action when she stated that "[t]he stitched seams can not be readily torn apart in the Roberts patent . . . ." The stitched seams in Roberts are designed to be readily torn apart by "grabbing the chain stitch and pulling same which disassociates edges 18 and 19." Further, Roberts' preferred embodiment uses a perforate seam rather than a chain stitch seam. We do not, however, agree with the district court's interpretation of what Cole surrendered when distinguishing the Roberts patent in her first office action. The only thing Cole expressly surrendered when distinguishing the Roberts patent was stitched seams when she argued that perforations are not stitched seams.

As noted above in subsection II(A)(2), in Cole's first request for reexamination, she stated, "The side seams of the [Strohbeen] patent are substantially different from the side seams of the instant [Cole] patent." The Strohbeen patent notes, however, that ultrasonic sealing is a "particularly preferred system for the [Strohbeen] invention." Cole made similar arguments regarding the significance of the Repke patent. The district court found that an estoppel arose from Cole's distinction of the Strohbeen and Repke patent. We agree. When Cole distinguished these references, she thereby surrendered any argument that her "perforation means" encompasses ultrasonic bonded seams.

This estoppel was bolstered when Cole distinguished the Heran patent in her second request for reexamination.

As noted above in subsection II(A)(3), Cole stated that the Heran patent was not pertinent structurally, except possibly for having tearable side seams. Heran, however, discloses ultrasonic bonding to make its seams. *See* subsection II(A)(2).

In summary, we believe the district court correctly concluded that the "perforation means" element is not a means-plus-function element under § 112, ¶ 6. We also believe the district court correctly interpreted the prosecution history to require that the "perforation means" limitation cannot be construed to include ultrasonic bonded seams. Cole surrendered ultrasonic bonded seams in her requests for reexamination.

B. Literal Infringement

Literal infringement of a claim exists when every limitation recited in the claim is found in the accused device, i.e., when the properly construed claim reads on the accused device exactly. *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1580, 12 USPQ2d 1382, 1384 (Fed. Cir. 1989) (citing cases). In a summary judgment case, we review *de novo* whether the properly construed claims read on the devices accused of infringing.

In the instant case, since K-C's accused products do not literally meet all of the claim limitations, we hold as a matter of law that there is no literal infringement. The claimed "perforation means," as we construed that element above, does not read on K-C's accused products.

Therefore, from our *de novo* review of the record, we hold that the district court correctly concluded that K-C does not literally infringe the claims of the '239 patent and properly granted summary judgment of no literal infringement.

C. Infringement Under the Doctrine of Equivalents

From our *de novo* review, we also hold that the district court did not err in finding as a matter of law no infringement under the doctrine of equivalents. The district court correctly concluded that K-C's accused products do not infringe the '239 patent under the doctrine of equivalents based upon that patent's undisputed prosecution history, during which Cole relinquished coverage in order to obtain and preserve her patent. For example, Cole surrendered ultrasonic bonded seams in her requests for reexamination when distinguishing the Strohbeen patent, the Repke patent, and the Heran patent. Strohbeen discloses the use of ultrasonic sealing to form the side seams of its disposable briefs. In her first request for reexamination, Cole stated that Strohbeen's side seams were substantially different from the side seams of her invention. Similarly, Repke discloses the use of "spaced sonic welds" to form the side seams of its disposable briefs. Repke also teaches that its briefs can be torn at the seams to facilitate removal. Cole, however, told the PTO that Repke was "not believed to be pertinent, structurally, to any of the claims." Finally, in her second reexamination request, Cole also limited the claimed "perforation means" to perforations when distinguishing the Heran patent.

III
CONCLUSION

For the above reasons, we hold that no genuine issue as to any material fact exists and that K-C is entitled to a judgment as a matter of law of no literal infringement and no infringement under the doctrine of equivalents. We therefore affirm the district court's judgment.

IV

COSTS

Each party shall bear its own costs.

AFFIRMED

RADER, *Circuit Judge*, dissenting.

In my view, the district court granted summary judgment in the face of disputed factual issues over both literal infringement and infringement by equivalents. Therefore, I respectfully dissent.

My divergence on literal infringement focuses on the term "perforation means" in the fifth element of claim one. Under the statutory regime of 35 U.S.C. § 112, ¶ 6, a means-plus-function format has significant implications. Because the "perforation means . . . for tearing" claim also recites some structure, this court avoided addressing those implications. The recitation of some structure, however, does not remove a claim from the scope of section 112, ¶ 6. *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536, 19 USPQ2d 1367, 1369 (Fed. Cir. 1991). Mere invocation of the word "means" also does not magically conjure all the implications of means-plus-function claiming, but *Laitram* suggests that the use of "means" creates at least a presumption in favor of section 112, ¶ 6. *See id.*; *see also York Prods. Inc. v. Central Tractor Farm & Family Ctr.*, __ F.3d __, 40 USPQ2d 1619, 1623 (Fed. Cir. 1996) ("[T]he use of the word 'means' triggers a presumption that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses.") (*citing Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1584, 39 USPQ2d 1783, 1787 (Fed. Cir. 1996)). Some claim language describing the location of the structure should not be sufficient to overcome this presumption. Nor does the word "perforation" provide enough structure to negate the import of the very next word – "means." I would honor the presumption and construe this claim under the statutory guidance of section 112.

To literally infringe a means-plus-function claim, an accused device must employ means identical to or the equivalent of the structures described in the patent specification. *Valmont Indus. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1042, 25 USPQ2d 1451, 1454 (Fed. Cir. 1993). The final inquiry as to whether an accused element is an "equivalent" is a question of fact. *D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1575, 225 USPQ 236, 239 (Fed. Cir. 1985). This court specifically refused to revisit this issue in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977 n.8, 34 USPQ2d 1321, 1327 n.8 (Fed. Cir. 1995), *aff'd*, 116 S. Ct. 1384 (1996). Because the district court did not address any structural equivalents under § 112, ¶ 6, genuine issues of material fact remain on the literal infringement issue.

Further, the parties hotly dispute the prosecution history. Cole herself twice requested reexamination, citing the Repke, Strohbeen, and Heran patents. Both times her lawyer stated that these patents were not pertinent, structurally, to any of the claims in the Cole patent. In particular, Cole pointed out differences between the absorbent structures in the prior art and those recited in her claims. With regard to seams, Cole surrendered only coverage of "stitched seams." Cole did not change her claims to escape coverage of any prior art. *See Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1219, 36 USPQ2d 1225, 1230 (Fed. Cir. 1995) ("Prosecution history estoppel normally arises when a change of claim scope is made in order to overcome an examiner's rejection based on prior art."). Thus, prosecution history estoppel should only pose a bar to her infringement case if her statements were "unmistakable." *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1582, 37 USPQ2d 1365, 1373 (Fed. Cir. 1996); *Texas Instruments Inc. v. United States*

Int'l Trade Comm'n, 988 F.2d 1165, 1174, 26 USPQ2d 1018, 1025 (Fed. Cir. 1993); *accord Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1580, 34 USPQ2d 1673, 1680 (Fed. Cir.), *cert. denied*, 116 S. Ct. 515 (1995). This ambiguous record does not provide "unmistakable" evidence of Cole's intent to surrender coverage. Thus, genuine issues of material fact remain preventing summary judgment on infringement by equivalents.

APPENDIX B

APPENDIX B

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

No. Civ 93-2010 PHX RCB

SHELLY K. COLE,
Plaintiff/Counterdefendant,
v.
KIMBERLY-CLARK CORPORATION,
Defendant/Counterclaimant.

ORDER
[filed June 20, 1995]

By Order entered on March 31, 1995, the court granted in part and denied in part K-C's motion for summary judgment. The court ruled that K-C is entitled to summary judgment on Cole's literal infringement claim, but not her equivalents claim. The court also ruled that it could not resolve K-C's prosecution history estoppel arguments in the context of its motion for summary judgment.

On April 13, 1995, K-C filed a motion for reconsideration. Pursuant to Local Rule 1.10(p), the court directed Cole to file a response. On May 12, 1995, she filed a response and her own motion for reconsideration. K-C filed its reply on May 17, 1995. The court has not requested additional briefing on Cole's motion. Having considered the parties' arguments and the entire record in this case, the court concludes that K-C's motion should be granted and Cole's denied.

I. COLE'S MOTION FOR RECONSIDERATION

The court will first address Cole's motion for reconsideration. Cole argues that the "perforation means . . . for tearing" element in her patent is a "means-plus-function" element under 35 U.S.C. § 112.[1] She contends that the court therefore was required to construe the "perforation means" element to cover all tearing mechanisms set forth in her patent, i.e. perforations, scored sides and scoring, and all "equivalents thereof." Thus, Cole argues, the court erred in ruling that "perforation means" requires perforations.

Cole's argument is belied by the prosecution history of her patent. *See Southwall Technologies, Inc. v. Cardinal IG Co.*, ___ F.3d ___, 1995 WL 274383 at *4 (Fed. Cir. May 10, 1995) (prosecution history must be examined to determine the meaning of terms in a claim); *Palumbo v. Don-Joy Co.*, 762 F.2d 969, 975 (Fed. Cir. 1985) (courts should consider prosecution history when construing "means-plus-function" claims). In differentiating her patent from the Roberts patent, Cole represented to the Patent Office that "the apparatus of the present invention utilizes perforations to allow the training brief to be readily torn." Cole cannot now claim that her invention utilizes tearing mechanisms other than perforations when she expressly told the Patent Office that her invention "utilizes perforations."

---

[1]The statute provides in relevant part:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6.

Moreover, the court does not accept Cole's assertion that the "perforation means . . . for tearing" element in her patent is a "means-plus-function" element. The case Cole relies on, *Palumbo v. Don-Joy Co.*, involved a patent disclosing a patellar brace. 762 F.2d at 971. The patent's claims included elements of "means for bracing the patella," "means for maintaining," and "means for causing." *Id.* at 972. The Federal Circuit found that those claims utilized "means-plus-function" language that covered equivalents under paragraph six of Section 112. *Id.* at 974.

Here, however, Cole utilized very different language. Her claims do not contain a "means for tearing" element. Instead, they contain a "*perforation* means . . . for tearing" element. She cannot ignore the "perforation" requirement.

The purpose of the sixth paragraph of Section 112 is to allow patent drafters to define an element in terms of its function rather than its structure. *AMP, Inc. v. Fujitsu Microelectronics, Inc.*, 853 F. Supp. 808, 819 (M.D. Pa. 1994), *appeal dismissed*, 47 F.3d 1180 (Fed. Cir. 1995). Thus, claim language is construed to be "means-plus-function" language only when "the language refers to an indefinite structure, defining it only by what function it will perform." *Id.* at 820. Cole's invention does not provide for an indefinite "means" for tearing; it provides for "perforation means." As the court discussed in its March 31, 1995 Order, K-C's products do not utilize "perforation means." Thus, there can be no literal infringement.

II. K-C'S MOTION FOR RECONSIDERATION

A. *Markman v. Westview Instruments, Inc.*

Subsequent to the court's ruling on K-C's motion for summary judgment, the Federal Circuit issued an en banc

opinion in *Markman v. Westview Instruments, Inc.*, ___ F.3d ___, 1995 WL 146983 (Fed. Cir. April 5, 1995) (en banc). K-C asserts that *Markman* is a fundamental change from preexisting law and requires the court to reconsider its prior Order. *See School District No. 1J, Multnomah County, Oregon v. ACandS, Inc.*, 5 F.3d 1255, 1263 (9th Cir. 1993) (reconsideration appropriate when there is an intervening change in controlling law), *cert. denied*, 114 U.S. 2742 (1994).

Specifically, K-C argues that *Markman* requires the court, not the jury, to determine the meaning and legal effect of the statements Cole made to the Patent Office. K-C maintains that it is a question of law whether Cole is estopped from arguing that a sonic bonded seam is the equivalent of a perforation mean, and it urges the court to find that she is.

Cole responds that *Markman* has nothing to do with the standards that must be satisfied to grant a summary judgment motion. She also argues that *Markman* does not apply to "means-plus-functions" claims under 35.U.S.C. § 112. Finally, Cole contends that *Markman* involved only literal infringement and is inapplicable to estoppel or the doctrine of equivalents.

The *Markman* court began its analysis by noting that the Federal Circuit's decisions have contained "inconsistent statements" regarding the extent to whether claim construction is a question of law or fact, or a mixed question of both. *Markman*, 1995 WL 146983 at *7. The court resolved its divergent case law by unambiguously holding that the construction of a patent claim is a matter of law exclusively for the court. *Id.* at *9. The court reasoned that because a "patent is a fully integrated written instrument," it "is uniquely suited for having its meaning and scope determined entirely by a court as a matter of law." *Id.*

The *Markman* court also justified its decision on the basis of fairness to competitors:

> [I]t is only fair (and statutorily required) that competitors be able to ascertain to a reasonable degree the scope of the patentee's right to exclude. They may understand what is the scope of the patent owner's rights by obtaining the patent and prosecution history--the undisputed public record--and applying established rules of construction to the language of the patent claim in the context of the patent. Moreover, competitors should be able to rest assured, if infringement litigation occurs, that a judge, trained in the law, will similarly analyze the text of the patent and its associated public record and apply the established rules of construction, and in that way arrive at the true and consistent scope of the patent owner's rights to be given legal effect.

Id. at *10 (internal quotation and citations omitted).

Cole's assertion that *Markman* does not apply to this case is unavailing. First, while she is correct that *Markman* arose from the district court's grant of a judgment as a matter of law following a jury trial, that by no means renders the case inapplicable to summary judgment. Summary judgment motions must be determined under the applicable law. *Markman* mandates that patent claims be construed by the court. Therefore, *Markman* alters the law relevant to adjudicating a summary judgment motion. Interpreting a patent claim is akin to interpreting a statute, *Markman*, 1995 WL 146983 at *19, and as with statutory interpretation, the court need not conduct a full-blown trial to render its interpretation.

Cole next argues that *Markman* does not apply to "means-plus-functions" claims under 35 U.S.C. § 112, pointing out that the court noted that "we express no

opinion on the issue of whether a determination of equivalents under § 112, para. 6 is a question of law or fact." *Id.* at *65 n.8. Cole's argument fails for two reasons. First as discussed in the court's analysis of Cole's motion for reconsideration, the court finds that Cole's patent is not a "means-plus-function" element. As such, whether *Markman* applies to "means-plus-function" patents is irrelevant.

Second, the "means-plus-function" analysis applies only to literal infringement claims. *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 934 (Fed. Cir. 1987). It "plays no role in determining whether an equivalent function is performed by the accused device under the doctrine of equivalents." *Id.* Thus, Cole's assertion that her patent is a "means-plus-function" element is not relevant to determining whether her patent's prosecution history estops her from invoking the doctrine of equivalents.[2]

Cole's final argument is that *Markman*'s analysis is inapplicable to estoppel or the doctrine of equivalents. This argument interprets *Markman* far too narrowly.

Markman requires the court to interpret a patent's claims. In so doing, "the court should also consider the patent's prosecution history." *Markman*, 1995 WL

---

[2]Cole correctly notes that the "doctrine of equivalents" and the notion of "equivalent" under Section 112 are not the same. In applying the doctrine of equivalents, the inquiry is whether the accused product is "'substantially the same thing, used in substantially the same way, to achieve substantially the same result'" *D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1575 (Fed. Cir. 1985) (citation omitted). "In applying the 'means-plus-function' paragraph of § 112, however, the sole question is whether the single means in the accused device which performs the function stated in the claim is the same as or an equivalent of the corresponding structure described in the patentee's specification as performing that function." *Id.*

146983 at *12. The court "has broad power to look *as a matter of law* to the prosecution history of the patent in order to ascertain the true meaning of language used in the patent claims." *Id.* (emphasis added). *Markman* does not limit courts to analyzing the patent in a vacuum. Instead, *Markman* dictates that courts give legal effect to both "the text of the patent and its associated public record," i.e., its prosecution history. *Id.* at *10.

Cole's interpretation of *Markman* would turn patent litigation on its head. While *Markman* was about claim construction, its analysis necessarily applies to prosecution history estoppel. That is, if *Markman* requires the court to interpret prosecution history for claim construction purposes, then the court must also interpret prosecution history for estoppel purposes. Inconsistent outcomes would often result were the court to determine the effect of prosecution history for one but not the other. The court must determine the import and meaning of prosecution history for all purposes.

B. Prosecution History Framework

Before turning to the prosecution history of Cole's patent, the court must consider K-C's assertion that the court's prior analysis of prosecution history estoppel contained an error of law. K-C argues that the court's discussion of the Strohbeen and Repke patents focussed on what the Strohbeen and Repke patents *claimed*. In fact, K-C contends, the proper focus should have been on what the Strohbeen and Repke patents *disclosed*.

Cole responds that the court's ruling with regard to the Strohbeen and Repke patents was correct. She does not, however, directly address K-C's argument. That is, Cole does not dispute the correctness of K-C's assertion that when the Patent Office evaluates a patent application to determine whether a given claim is patentable, it

compares the proposed claim to what is disclosed in the prior art.

The court has reviewed the relevant authorities and concludes that K-C is correct. The Patent Office "must consider all disclosures of the prior art," not just the claims. *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991). Thus, in analyzing a patent's prosecution history, courts examine what the prior art discloses. *E.g.*, *Hoganas AB v. Dresser Industries, Inc.*, 9 F.3d 948, 952-53 (Fed. Cir. 1993). Courts do not limit their examination to what the prior patent claims.

In the March 31, 1995 Order, the court stated that "none of the claims in the Strohbeen patent require that it utilize sonic bonded seams." March 31, 1995 Order at 18. The court, also stated that "K-C has not pointed to any claim in Repke requiring the use of spaced sonic welds." *Id.* at 19. The court now recognizes that its analysis of those patents was too limited and should have included the patents' specifications as well as their claims.

With the foregoing in mind, the court will now examine the prosecution history of Cole's patent as it relates to the Roberts, Strohbeen and Repke patents.

C. Prosecution History of Cole's Patent

1. The Roberts Patent

As the court discussed in its March 31, 1995 Order, the Patent Office initially rejected Cole's patent based on the Roberts patent. In her request for reconsideration, Cole argued:

> It will be noted that the Roberts patent discloses overlapping edges at the sides between the waist bands and the leg bands, and the overlapping edges are stitched together. The stitched seams cannot be readily torn apart in the

> Roberts patent, but the apparatus of the present invention utilizes perforations to allow the training brief to be readily torn so as to expedite the removal of the training brief. It is respectfully submitted that this feature of the training briefs of the present invention is neither suggested nor taught by the Roberts patent.

In its March 31, 1995 Order, the court stated that because Cole's assertions to the Patent Office focussed primarily on the Roberts patent's "stitched seam," the court could not hold as a matter of law that Cole meant to encompass all seams. Instead, the court held that factual questions existed regarding the meaning of Cole's prosecution arguments. Recognizing that prosecution history estoppel is a question of law, the court now reconsiders its ruling.

In its previous Order, the court found that Professor Vaughan's testimony regarding the meaning of Cole's statements to the Patent Office precluded the court from interpreting her statements as a matter of law. *Markman*, however, permits the court to consider the testimony of Cole's expert and give it as much or as little weight as the court believes it deserves:

> [Expert] testimony about construction, however, amounts to no more than legal opinion—it is precisely the process of construction that the court must undertake. Thus, as to these types of opinion, the court has complete discretion to adopt the expert legal opinion as its own, to find guidance from it, or to ignore it entirely, or even to exclude it. [citation omitted]. When legal "experts" offer their conflicting views of how the patent should be construed, or when the legal expert's view of how the patent should be construed conflicts with the patent documentation

> itself, such conflict does not create a question of fact nor can the expert opinion bind the court or relieve the court of its obligation to construe the claims according to the tenor of the patent.

Markman, 1995 WL 146983 at *15. While *Markman* analyzed expert testimony in the context of claim construction, its analysis also applies to prosecution history estoppel since that too is a question of law. *See Hoganas*, 9 F.3d at 952.

Vaughan testified that nothing in Cole's statement to the Patent Office suggests that "seams," "sonic bonded seams," or "perforate side seams" cannot be "perforation means." The court disagrees.

Cole told the Patent Office that her product "utilizes perforations to allow the training brief to be readily torn." She added that "this feature," which the court interprets to mean perforations allowing the training brief to be readily torn, i.e. "perforation means," "is neither suggested nor taught by the Roberts patent." That is, Cole told the Patent Office that Roberts does not suggest or teach "perforation means."

Roberts, however, discloses a "perforate side seam" which "provid[es] perforations . . . to allow separation of the fused area by tearing same." Thus, by implication,[3]

---

[3]Throughout her papers, Cole maintains that because her claims were not amended, estoppel can arise only as a result of her "unmistakable assertions" to the Patent Office. *See Texas Instruments v. U.S. Int's Trade Comm'n*, 988 F.2d 1165, 1174 (Fed. Cir. 1993). The Federal Circuit, however, while using the term "unmistakable assertion" did not purport to use it as a term of art as Cole seems to suggest. While Cole did not expressly state that Roberts' "perforate side seams" are different from her "perforation means," the only reasonable implication of what she did "unmistakably assert" is that "perforate side seams" and "perforation means" are, in fact, different.

Cole told the Patent Office that "perforation means" are not the same as "perforate side seams." Both "perforation means" and "perforate side seams" utilize perforations to facilitate removal. The only discernable difference is that the Roberts' "perforate side seam" has a seam. Cole's invention does not. Thus, products with seams, such as K-C's, cannot have "perforation means."

Cole argues that her invention can be used in products with or without a seam, and she directs the court to a diagram she provided to her original patent lawyer which refers to "seam junctures." Her actual patent, however, does not refer to seams, and nothing in her patent suggests that her invention can be used in a products with seams. A competitor therefore would have been reasonably justified in concluding that Cole's statements to the Patent Office regarding the Roberts patent were tantamount to an assertion that a "perforation mean" is not a "perforate side seam" because a "perforation mean" does not utilize a seam.

Cole maintains that she never amended her claims with regard to the presence or location of her perforation means, and she contends that the focus of her remarks to the Patent Office dealt with the absorbent layers in her invention, not the tearable sides. Her argument is unavailing, however, because "an estoppel can be created even where the claim, which is the basis for the assertion of infringement under the doctrine of equivalents, was not amended during prosecution." *Haynes Int'l, Inc. v. Jessop Steel Co.*, 8 F.3d 1573, 1579 (Fed. Cir. 1993), *clarified on other grounds*, 15 F.3d 1076 (Fed. Cir. 1994). Moreover, regardless of whether the distinctions she drew with regard to the sides of her invention and Roberts were necessary to secure her patent, she is bound by the arguments that she made. *See Southwall Technologies, Inc. v. Cardinal IG Co.*, ___ F.3d ___,

1995 WL 274383 at *12 (assertions made during prosecution, "whether or not actually required to secure allowance of the claim, may also create an estoppel.").

K-C's accused products contain seams. Therefore, based on Cole's representations to the Patent Office, they do not contain "perforation means." Thus, K-C's accused products and Cole's invention do not perform in substantially the same way, and K-C cannot be liable under the doctrine of equivalents.

2. The Strohbeen and Repke Patents

The court's renewed analysis of the Strohbeen and Repke patents also reveals that Cole is estopped from arguing that K-C infringed her patent. Strohbeen teaches "narrow exterior side seams joining . . . the front and rear panel." It then discloses that "[a] particularly preferred system for the invention is found to be ultrasonic sealing." Cole, however, told the Patent Office that "[t]he side seams of the [Strohbeen] patent are substantially different from the side seams of the instant [Cole] patent."

If Strohbeen's side seams are "substantially different" from Cole's, then Cole's invention cannot utilize "ultrasonic sealing." The sides of K-C's accused products are ultrasonically sealed. Ergo, K-C's products' side seams also must also be "substantially different" from Cole's, and she is estopped from now arguing to the contrary.

Similarly, Repke discloses the use of "spaced sonic welds" to make its side seam. Cole told the Patent Office that "the [Repke] patent . . . [is] not believed to be pertinent, structurally, to any of the claims of the subject [Cole] patent."

If Repke is not structurally pertinent to any of Cole's claims, then Repke necessarily does not utilize "perforation means." Thus, a "spaced sonic weld" is not

a "perforation means." Accordingly, to the extent that K-C's accused products utilize "spaced sonic welds," Cole's arguments also bar her equivalents claim.

III. COUNTERCLAIM

K-C filed a counterclaim seeking a declaratory judgment that K-C has not infringed any claims in Cole's patent and that Cole's patent is invalid and unenforceable. The court is not presently amenable to entering a Rule 54(b) judgment in this case and, thus inclined, will not direct the entry of judgment on Cole's complaint until it is also able to resolve the issues relative to K-C's counterclaim.

While it appears a natural concomitant to the court's adjudication of Cole's complaint that the court may declare that K-C has not infringed any claims in Cole's patent (the infringement issue), whether Cole's patent is valid and enforceable (the validity issue) is not an issue that either party has addressed in its briefing. The court, therefore, is not prepared to enter any judgment respecting the validity issue.

K-C shall apprise the court in writing within twenty days whether, in light of this Order, it wishes to continue to pursue its counterclaim regarding the validity of Cole's patent. If K-C elects not to pursue that issue, it shall by that same deadline submit a proposed form of judgment which terminates this lawsuit in its entirety. Cole may file objections to K-C's proposed form of judgment within ten days of service thereof.

IT IS ORDERED denying Cole's motion for reconsideration (doc. 169).

IT IS FURTHER ORDERED granting K-C's motion for reconsideration (doc. 161).

IT IS FURTHER ORDERED directing K-C to apprise the court within twenty days whether it will

continue to pursue its counterclaim. If not, K-C shall lodge a proposed form of judgment.

IT IS FURTHER ORDERED denying all other pending motions as moot.

DATED this 17 day of June, 1995.

/s/Robert C. Broomfield
Robert C. Broomfield
United States District Judge

Copies to counsel of record

APPENDIX C

APPENDIX C

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

No. Civ 93-2010 PHX RCB

SHELLY K. COLE,
Plaintiff/Counterdefendant,
v.
KIMBERLY-CLARK CORPORATION,
Defendant/Counterclaimant.

ORDER
(Under Seal)
[filed March 31, 1995]

Plaintiff Shelly K. Cole ("Cole") brings this patent infringement lawsuit against defendant Kimberly-Clark Corporation ("K-C"). On December 12, 1994, the court heard oral argument on K-C's motion for summary judgment and Cole's Rule 56(f) motion, motion to strike Reply and alternative motion to file supplemental opposition. Shortly thereafter, the court issued an Order granting Cole's Rule 56(f) motion, denying her motion to strike and granting her alternative motion to file supplemental opposition. (December 16, 1994 Order.) Cole subsequently took additional discovery, and the parties have filed supplemental briefing regarding the evidence gleaned from that discovery. Having considered the parties' written and oral arguments, the court now rules on K-C's motion for summary judgment.

I. BACKGROUND

In 1975 or 1976, Cole conceived of the idea of disposable training pants for children. In 1981, she prepared a diagram of her training pant design. In 1986, she brought the design to an attorney who helped her to file an application for a patent. On December 1, 1986, while her patent application was pending, Cole sent K-C a copy of her patent application and a letter explaining her idea for disposable training briefs. There is no indication in the record whether K-C responded to Cole's solicitation. In any event, on May 10, 1988, Cole obtained a patent for her design,[1] but she has never actually utilized her patent to manufacture a product.

In 1989, K-C began marketing disposable training pants. Plaintiff alleges that K-C's products, which include Huggies Pull-Ups and Huggies GoodNites, infringe her patent.

Both Cole's design and K-C's accused products are disposable training pants that can be torn along the side so that an adult can remove a child's soiled pants without having to slide them down the child's leg. The crux of K-C's motion is that the tearable side panel of its training pants is designed differently than the side panel described in Cole's patent. Specifically, K-C contends that its products utilize sonic bonded seams while Cole's patented design calls for the use of "perforation means."

II. DISCUSSION

A. Literal Infringement

Courts analyze patent infringement lawsuits by employing a two-part test focussing on the claims that

---

[1] U.S. Patent No. 4,743,239, entitled "Disposable brief having an area of relatively thin absorbent material and an area of relatively thick absorbent material."

make up the patent. "The patented invention as indicated by the language of the claims must first be defined (a question of law), and then the trier of fact must judge whether the claims cover the accused product (a question of fact)." *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753, 758 (Fed. Cir. 1984). Although claim construction is a question of law, "interpretation of a claim may depend on evidentiary material about which there is a factual dispute, requiring the resolution of factual issues as a basis for interpretation of the claim." *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1054 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988).

The first claim in Cole's patent provides that her disposable training brief includes "perforation means . . . for tearing the outer impermeable layer means for removing the training brief in case of an accident by the user." D's Ex. C at SC 5, Col. 4, lns. 58-62. The parties disagree as to whether "perforation means" encompass the side seams contained in K-C's products.

Joyce Damico is a research scientist who helped to develop K-C's disposable training pants. In her affidavit, she explains the process used to manufacture K-C's product. Because her testimony is technical in nature and not readily susceptible to summarization, the court will set forth the relevant portions verbatim:

> During the manufacture of the Huggies Pull-Ups disposable training pant, what will eventually become the training pant starts off in an essentially flat, two dimensional form. However, relatively late in the manufacturing process, the product is folded at the crotch. After folding, the front stretchable side panel and the back stretchable side panel are brought together at the side to form a seam allowance. The seam allowance of the outer edges is then passed

through an ultrasonic bonder. The ultrasonic bonder uses extremely high frequency vibrations to generate frictional heat in selected spots. The material in the seam allowance melts in each area where heat is applied, causing molten material to flow into the fibers surrounding the melt point. When the molten material cools and solidifies, a bond or sonic weld is formed.

In the K-C training pants, the sonic welds are visible as rows of melt points running down the seam in the center of each stretchable side panel. The melt points are created where melting has occurred.

The sonic welds are not holes, and they have neither the purpose nor the effect of weakening. Before the sonic welds are made, the front side panel is completely separate from the back side panel. The result of the sonic bonding is to securely fasten the front side panel to the back side panel. Strength is the object, not weakness.

. . . .

The sonic bonding process occasionally generates so much heat that the material in the melt point is completely transported into the surrounding fibers, causing a melt through. The sonic welds in the K-C training pants are not, however, made for the purpose of creating holes. In fact, the finished product specification for the Pull-Ups disposable training pants has a target of zero holes, and training pants are rejected if an excessive number of holes are present.

Def's Ex. A, §§ 6-8, 10.

K-C argues that words used in patent claims must be given their ordinary effect. It contends that the term "perforation" does not have any special meaning, and

that the court should therefore utilize a dictionary definition of "perforation," one of which is:

> a hole, or one of a number of holes, bored or punched through something, as those between individual postage stamps of a sheet to facilitate separation.

Webster's Encyclopedic Unabridged Dictionary (1989).

K-C asserts that the dictionary definition of "perforation" requires holes, but, as explained in Damico's affidavit, K-C's products do not have holes. K-C also directs the court to Cole's deposition testimony that "one purpose [of perforations or scoring in her design] is to weaken the material for easier tearing." Pl's Ex. B. at 155. In contrast, Damico testified that the purpose of the sonic welds in the K-C products is to strengthen the material, not weaken it. That is, the essence of K-C's position is that its training pants do not have holes that are made for the purpose of weakening but instead have sonic welds designed to strengthen. K-C also emphasizes throughout its papers that its products have a seam, but Cole's does not. Indeed, K-C points out that Cole conceded at her deposition that she told her patent lawyer at their initial meeting that there was no seam in her training pant design.

Cole argues that K-C's definition of "perforation means" is far too narrow. The specifications in Cole's patent refer to "scoring," "scored sides" and "perforations," and Cole contends that the "perforation means" element in her patent is a "means-plus-function" element under 35 U.S.C. § 112 that encompasses all means for tearing specified in her patent as well as their equivalents. She argues that K-C's products contain "perforation means" in the form of rows of areas where portions of the fabric material have been removed to form a tear line.

Cole has submitted expert testimony to support her theories. Her first expert is Edward A. Vaughn, Ph.D., Professor of Textiles at Clemson University, who teaches and conducts research on the technologies applied in bonding nonwovens and other materials used in absorbent products, such as ultrasonic bonding. Cole's second expert is Karl F. Graff, Ph.D., Executive Director of Edison Welding Institute, who claims to be knowledgeable and skilled in the art relating to the type of ultrasonic bonding used by K-C in its accused products. In most material respects, their testimony is identical.

Cole's experts state that the term "perforation means" as used in Cole's patent includes perforations, scoring and all equivalent means used to facilitate separating material used in a training brief. They assert that K-C's accused products contain "perforation means." Both describe the rows of circular areas contained in the side panels of K-C's products and testify that:

> There are many different ways of making perforations in absorbent products . . . . To make perforations, fabric material is removed, displaced, eliminated, reduced, or cut away, leaving a series of holes, small incisions, voids, or similar pattern that facilitates tearing or separation along a predetermined line. This is what has been done in the sides of Kimberly-Clark's [accused] products . . . . The circular areas described above are perforations and operate as perforations, because they facilitate tearing and separation and provide a tear line.

Vaughn Dec. ¶ 5; *see also* Graff Dec. ¶ 5.

Vaughn testifies that the dictionary definition of "perforation" that K-C relies on does not describe every type of perforation. Vaughn Dec. ¶ 6. He adds that

K-C's products "are scored and operate as scored sides, because fabric material has been removed from them, displaced, thinned or weakened in a manner that makes them easier to tear or separate along a predetermined line." *Id.* at ¶ 7. He also testifies that even if K-C's products do not contain perforations or scoring in the most literal sense, they function as the equivalents of perforations or scoring. *Id.* at ¶ 8.

Both experts aver that K-C is wrong in its assertion that the circular areas at the sides of its products which provide a tear line cannot be perforations because those areas are introduced into the products during the ultrasonic bonding process. Rather, they state that K-C's ultrasonic bonding process created rows of "perforations or the equivalent of perforations" which should be characterized as "perforation means." *Id.* at ¶ 10; Graff Dec. ¶ 8. Both also testify that Cole's patented invention can be utilized in products with or without seams. Vaughn Dec. ¶ 3; Graff Dec. ¶ 3.

After reviewing the evidence in the record and the applicable law, the court concludes that the evidence cannot support a finding of literal infringement. Words in a patent claim must be given their ordinary meaning "unless it appears that the inventor used them differently." *Envirotech*, 730 F.2d at 759. Cole's invention utilizes "perforation means." The only reasonable reading of this language is that the sides of her invention tear by means of a perforation, but K-C's accused products do not have perforations. Instead, they have seams which have been bonded together and are capable of tearing. When the side seams are torn, it becomes obvious that the sides are not held together by perforations as they leave a jagged tear line.

Cole's experts suggest that a "perforation mean" is somehow more expansive than a perforation. However,

they do not testify that "perforation mean" is a term of art with a specialized meaning within the industry. Moreover, Cole has not presented any evidence indicating that she intended "perforation mean" to have a particular connotation. Thus, the court concludes that as used in Cole's patent, a "perforation means" is a perforation.

The court recognizes that Cole's expert's testified that the K-C products contain perforations. However, their conclusions are not internally consistent with their own testimony. Vaughn testified, and Graff apparently agrees, that "[t]o make perforations, fabric material is removed, displaced, eliminated, reduced, or cut away, leaving a series of holes, small incisions, voids, or similar pattern that facilitates tearing or separation along a predetermined line." The side seams in K-C's accused products do not meet this definition as they do not contain holes, incisions or voids. Instead, as explained by Damico's testimony, K-C's products contain side seams that have been welded together with sonic bonds. When K-C's products are torn along the side seam, it becomes readily apparent that the products do not contain perforations. The side seams do not tear along a neat, perforated line, but instead they leave a jagged tear line where the seam is split. No reasonable juror examining K-C's products could conclude that the side seam is a "perforation" or a "perforation mean." It simply is not.

B. Equivalents

While the court concludes that no rational trier of fact could conclude that the side seams in K-C's products literally infringe Cole's invention, K-C could still be found liable under the doctrine of equivalents. Under that doctrine, infringement exists when "the accused device performs substantially the same function, in

substantially the same way to achieve substantially the same result." *Uniroyal*, 837 F.2d at 1057. "Whether a device is equivalent to a claimed invention is a factual inquiry." *Id.*

K-C argues that the products cannot be equivalents because its sonic welding is designed for strength while Cole's perforation means are designed for weakness. Cole did testify at her deposition that "one purpose of [perforations or scoring] is to weaken the material for easier tearing," while Damico states in her affidavit that the object of sonic welding is strength. That is, Cole appears to state that her design is made to be "weak" so that it can be torn while Damico emphasizes that K-C's bonding is made to be strong to prevent it from tearing when the training pants are pulled on and off.

It appears that K-C's product both performs substantially the same function and achieves substantially the same result as Cole's product. Each is designed to enable a person caring for a child to tear down the side of the pant leg. The issue is whether it is done in substantially the same way. While close, the court finds that K-C's strength/weakness distinction is not sufficient to grant summary judgment on the equivalency issue. Moreover, Cole's experts testify that the accused products' side seams are at least the equivalent of perforation means. Vaughn states in his supplemental declaration that:

> [T]he fourth line of indentations in K-C's training pants perform the same function as perforations (i.e., facilitating tearing along a prescribed line); they perform this function in the same way as perforations do (i.e. reducing the quantity of material to be torn through and/or allowing a tearing or pulling force to be concentrated upon a more limited area); and they

accomplish the same result as perforations (i.e., they allow training pants to be torn for removal). Graff Sup. Dec. ¶ 8. This testimony is sufficient to create a genuine issue of fact as to whether K-C's products are equivalent to Cole's invention.

C. Prosecution History

K-C argues that even if Cole amasses countless experts to testify that K-C's sonic bonds are perforation means, Cole is nevertheless estopped from arguing that K-C's seams are the equivalent of perforation means because of prior representations she made to the Patent Office. The Federal Circuit has explained the relevance of a patent's prosecution history:

> [T]he prosecution history (sometimes called "file wrapper and contents") of the patent consists of the entire record of proceedings in the Patent and Trademark Office. This includes all express representations made by or on behalf of the applicant to the examiner to induce a patent grant, or . . . to reissue a patent. Such representations include amendments to the claims and arguments made to convince the examiner that the claimed invention meets the statutory requirement of novelty, utility, and nonobviousness. Thus, the prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.

Standard Oil Co. v. American Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985).

Prosecution history estoppel is a limitation on a patent holder's ability to invoke the doctrine of equivalents. *See Texas Instruments v. United States International*

Trade Comm., 988 F.2d 1165, 1173 (Fed. Cir. 1993). A patent holder is estopped from obtaining coverage of a subject matter that he or she relinquished during prosecution. *Hoganas AB v. Dresser Industries, Inc.*, 9 F.3d 948, 951-52 (Fed. Cir. 1993). "This is not to say, however, that, whenever a limiting . . . argument is made during prosecution, the patentee loses all coverage between what the claims literally cover and what they would have covered prior to the . . . argument." *Hormone Research Foundation v. Greentech, Inc.*, 904 F.2d 1558, 1564 (Fed. Cir. 1990), *cert. dismissed*, 499 U.S. 955 (1991). Instead, the court must look at the circumstances surrounding the patentee's arguments to the Patent Office in order to determine the scope of the limiting effect of the arguments. *See id.*

1. The Roberts Patent

The Patent Office initially rejected Cole's patent application based upon a prior art patent that had been issued to Joan Roberts ("the Roberts patent" or "Roberts"). The Roberts patent describes a "disposable toddler training panty" with "separable side seams . . . with a plurality of perforations along the length thereof providing a means of seam separation by tearing same [to] allow[] for easy removal . . . ." Roberts patent, Col. 5, lns. 1-11. After the Patent Office rejected her application, Cole requested reconsideration, and with regard to the side panels she argued:

> It will be noted that the Roberts patent discloses overlapping edges at the sides between the waist bands and the leg bands, and the overlapping edges are stitched together. The stitched seams cannot be readily torn apart in the Roberts patent, but the apparatus of the present invention utilizes perforations to allow the training brief to be readily torn so as to expedite the

> removal of the training brief. It is respectfully submitted that this feature of the training briefs of the present invention is neither suggested nor taught by the Roberts patent.

D's Ex. I at SC 74-75. Thereafter, the Patent Office issued Cole's patent.

K-C argues that Cole's statement to the Patent Office contains two key assertions: (1) Cole states that her invention "utilizes perforations; and (2) Cole states that "this feature" (i.e. perforations) "is neither suggested nor taught by the Roberts patent." K-C points out that the Roberts patent taught a "perforate side seam." K-C thus maintains that the distinction drawn by Cole is a distinction between the "perforate side seam" in the Roberts patent and the "perforation means" in Cole's patent. K-C contends that if the "perforate side seam" in Roberts is not a "perforation means" then the sonic bond side seam in K-C's products cannot be a "perforation means." That is, K-C's position is that if the court finds that its side seam is perforated, then its products must be characterized as having "perforated side seams" which cannot be "perforation means."

Cole first responds that her expert, Edward A. Vaughn, testified that nothing in Cole's statement to the Patent Office suggests that "sonic bonded seams" cannot be "perforation means." She argues that she never told the Patent Office that a seam cannot be a perforation means. Rather, Cole insists that the only distinction she made in her statement to the Patent Office was between stitched seams and perforations. Cole also argues that if K-C's position were correct, the patent examiner would have required her claims to be amended.

The question of whether Cole's previous assertions regarding the Roberts patent estops her from making her present arguments is a very close one. Nevertheless, the

court concludes that Cole's statement to the Patent Office which seeks to distinguish between the Roberts' "stitched seams" and her own "perforations" is not sufficient to resolve the issue on summary judgment. While Roberts also teaches "perforate side seam", in presenting her argument to the Patent Office, Cole did not focus on that language of the Roberts patent. That is, she did not argue that a "perforate side seam" is not a "perforate means;" she argued that a "stitched seam" is not a "perforation." K-C has not cited any authority for the proposition that a court can look beyond a patentee's express arguments to the Patent Office. As such, the court cannot hold, as a matter of law, that when Cole referred to "stitched seams" she meant to encompass *all* seams, when that is not what she said.

Moreover, the Federal Circuit has ruled that the legal standard for measuring what subject matter was relinquished during prosecution is measured from the vantage point of "one reasonably skilled in the art who views the question from the perspective of a competitor in the marketplace." *Hoganas*, 9 F.3d at 953 n.15. Vaughn testified that persons working in the disposable absorbent industry would find nothing in Cole's statement to the Patent Office indicating that "sonic bonded seams" cannot be "perforation means." Vaughn Dec. ¶ 3. While this may or may not prove to be accurate, Vaughn's testimony at least precludes summary judgment on this issue.

The court emphasizes that it is not holding that Cole's arguments to the Patent Office regarding Roberts do not encompass K-C's accused products. Rather, the court holds that a factual issue remains which cannot be resolved in the summary judgment context. *See Hormone Research Foundation*, 904 F.2d at 1564-67

(summary judgment inappropriate when factual questions exist regarding meaning of prosecution arguments).

2. The Strohbeen and Repke Patents

In April, 1991, Cole filed with the Patent Office a request for reexamination of her patent to determine its validity notwithstanding several other patents, including U.S. Patent 4,610,679 (the "Strohbeen patent" or "Strohbeen") and U.S. Patent 4,205,679 (the "Repke patent" or "Repke"). The Repke and Strohbeen patents are both for disposable underpants.

Strohbeen includes a claim for "narrow exterior side seams joining . . . the front and rear panels." D's Ex. J at Col. 9, lns. 4-6. The section of the patent labeled "Modes For Carrying Out the Invention" includes the following: "The series of seal lines may be formed by any desired method. Typical of such methods are adhesive and heat sealing, a particularly preferred system for the invention is found to be ultrasonic sealing." *Id.* at Col. 5, lns. 54-57.

In her request for reexamination, Cole stated:

> The [Strohbeen] patent is believed to be material to the present patent only to the extent that both patents deal with disposable underpants garments and multiple absorbent layers. Structurally, the [Strohbeen] patent is not believed to be material to the claimed subject matter of the instant patent except for multiple absorbent layers.
>
> . . . .
>
> The [Strohbeen] patent . . . [is] not believed to be pertinent to any of the claims in the subject [Cole] patent.
>
> . . . .
>
> The [Strohbeen] patent appears to be drawn primarily to the side seams. The side seams of

> the [Strohbeen] patent are substantially different from the side seams of the instant [Cole] patent.

D's Ex. G. at SC 147-148.

Repke also shows side seams. The "Detailed Description" section of the patent explains that the side seams can be formed in one of three ways. One of the three ways is by interleaving the side layers and joining them by weld lines. The patent provides that the weld lines, in turn, "may be a series of sonic bonds." D's Ex. E. at Col. 14, lns. 12-18.

With respect to the side seams in the Repke patent, Cole stated in her request for reexamination:

> [T]he [Repke] patent . . . [is] not believed to be pertinent, structurally, to any of the claims in the subject [Cole] patent.
>
> . . . .
>
> Side seams, which extend between leg cutout portions and the waist, are adhesively secured together. Several different embodiments of side seam construction are illustrated. The different side seam embodiments include dovetailing, end butting, and variations thereof. A common characteristic of the side seams is that there are continuous adhesive beads of some type of adhesive, hot-melt elastic, or the like.

D's Ex. G. at SC 149-150.

The Patent Office found that Cole's request for reexamination did not raise any substantial questions of patentability. The Patent Office listed several essential features of Cole's patent, including "perforation means . . . to facilitate tearing the outer impermeable layer and removing the training brief." *Id.* at SC 169. The Patent Office found that none of the essential features of Cole's patent were present in the Strohbeen or Repke and that those two patents were only relevant to Cole's insofar as

they relate to the same general subject matter. *Id.* at SC 169-170.

K-C now argues that Cole's statement to the Patent Office that the Strohbeen's side seams are substantially different than hers is akin to an assertion that "sonic bonded seams" are not "perforation means." K-C also argues that Cole's argument that the Repke patent was not structurally pertinent to the claims in her patent is equivalent to arguing that "spaced sonic welds" are not "perforation means."

K-C's arguments are not sufficient to warrant summary judgment. It is a question for the fact-finder to determine whether Cole's assertions and position before the Patent Office regarding the Strohbeen and Repke patents constitutes prosecution history estoppel.

With respect to Strohbeen, arguably Cole did not tell the Patent Office that sonic bonded seams are not perforation means. She did say that the side seams in the two patented designs were different. However, none of the claims in the Strohbeen patent require that it utilize sonic bonded seams. The patent specifically provides that the seams may be formed by "any desired method." While the patent goes on to say that one method is ultrasonic sealing, the court cannot conclude as a matter of law that there is a requirement of a sonic bonded seam in the Strohbeen patent. The Federal Circuit has emphasized that expressions of preferred embodiments in specifications normally are not to be read as limiting claims. *See, e.g., Laitram Corp v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865 (Fed. Cir. 1988), *cert. denied*, 490 U.S. 1068 (1989); *SRI Int'l v. Matsushita Elec. Corp. of America*, 775 F.2d 1107, 1121-22 (Fed. Cir. 1985) (in banc).

Similarly, Cole did not directly tell the Patent Office that spaced sonic welds in the Repke patent are not

perforation means. K-C has not pointed to any claim in Repke requiring the use of spaced sonic welds. Instead, K-C relies on a comment in the patent indicating that there are three methods of forming the side seams and one of those methods "may be a series of sonic welds." The existence of this reference to sonic bonds in a sixteen-page patent is not sufficient as a matter of law to turn Cole's statement that Repke is not structurally pertinent to the claims in her patent into an admission that spaced sonic welds are not perforation means.

The court reiterates that K-C is at liberty to seek to convince a trier of fact that Cole's arguments to the Patent office regarding the Strohbeen, Repke and Robert patents encompass K-C's products. By this Order, the court only finds that summary judgment would not be appropriate on those issues.

III. CONCLUSION

The court finds that K-C is entitled to summary judgment on Cole's claim of literal infringement. Genuine issues of material fact remain, however, with respect to the issues of equivalents and prosecution history estoppel. The court also notes that it previously vacated the pretrial order deadline pending its ruling on K-C's motion for summary judgment. The court now resets that deadline for May 15, 1995. The court will conduct the final pretrial conference in this matter on May 22, 1995 at 4:15.

IT IS ORDERED granting in part and denying in part denying defendants' motion for summary judgment (doc. 95) in the manner set forth in this Order.

IT IS FURTHER ORDERED directing the parties to apprise the court whether, in light of the confidentiality agreement, this order needs to remain under seal.

IT IS FURTHER ORDERED that the parties shall submit their proposed joint pretrial order by May 15, 1995. The pretrial order shall be in the form of the attached sample.

IT IS FINALLY ORDERED setting the final pretrial conference on May 22, 1995 at 4:15 p.m.

DATED this 30 day of March, 1995.

/s/Robert C. Broomfield
Robert C. Broomfield
United States District Judge

Copies to counsel of record

APPENDIX D

APPENDIX D

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

No. 95-1505

SHELLEY K. COLE,
Plaintiff-Appellant,
v.
KIMBERLY-CLARK CORPORATION,
Defendant-Appellee.

ORDER
[filed February 18, 1997]

A combined petition for rehearing and suggestion for rehearing in banc having been filed by the APPELLANT, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the suggestion for rehearing in banc having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same thereby is, DENIED and it is further

ORDERED that the suggestion for rehearing en banc be, and the same hereby is, DECLINED.

The mandate of the court will issue on February 25, 1997.

Circuit Judge SCHALL did not participate in the vote.

FOR THE COURT
JAN HORBALY, CLERK

Dated: February 18, 1997

By /s/BLD
Brian P. LeDuc
Associate Chief Deputy Clerk

cc: MORGAN CHU
V. BRYAN MEDLOCK, JR.

COLE V KIMBERLY CLARK, 95-1505
(DCT - 93-CV-2010)

Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public record.